Long-Term Temperature Monitoring Program 1998-1999, Newfoundland Region

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Canadian Technical Report of Hydrography
and Ocean Sciences No. 206

March 2000

LONG-TERM TEMPERATURE MONITORING PROGRAM 1998-1999, NEWFOUNDLAND REGION

by

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ABSTRACT

E. B. Colbourne, and P. Stead. 2000. Long - Term Temperature Monitoring Program 1998 - 1999, Newfoundland Region. Can. Tech. Rep. Hydrogr. Ocean Sci. 206: ix + 389p.

Monthly summaries of the temperature statistics including minimum, maximum, mean, standard deviations, degree day 0, degree day 4 and the number of observations are presented for thermograph deployments from 1998 - 1999 in the inshore regions of Newfoundland and Labrador. In addition, the temperature time series and location map are presented for the sampling period of each deployment.

RÉSUMÉ

E. B. Colbourne, and P. Stead. 2000. Long -Term Temperature Monitoring Program 1998 - 1999, Newfoundland Region. Can. Tech. Rep. Hydrogr. Ocean Sci. 206: ix + 389 p.

On présente ici des résumés des statistiques mensuelles de température, y compris des minima, des maxima, des moyennes, des écarts-types, du degré-jour 0, du degré-jour 4 et du nombre d'observations, pour les thermographes mouillés de 1998 à 1999 dans les régions côtiéres du Terre-Neuve et du Labrador. On et la série chronologique correspondant à la période d'échantillonnage.

INTRODUCTION

Since 1967 fisheries scientists have been monitoring near-shore water temperatures at many locations around the bays and headlands off eastern Canada. The monitoring sites and the measurement periods were selected to meet the objectives of each individual process-oriented project, but all data were processed, archived and published as annual data reports as part of the Long Term Temperature Monitoring Program (LTTMP) of the Department of Fisheries and Oceans. The data archive that resulted from this program consists of temperature time series from a large number of sites distributed in the near shore region dating back to 1967 in the Newfoundland region and to 1978 in the Scotia-Fundy region and Gulf of St. Lawrence region.

The quality controlled time series data from the thermographs are archived at NAFC and the data are available upon request. This report presents a summary of the data from each deployment in the Newfoundland region from 1998 to 1999. Previous LTTMP data and technical reports in this series are listed in the bibliography.

INSTRUMENTATION

The primary instrument used for collecting water temperatures in the near-shore region during the early years of the program was the Ryan model J-180 and J-90 analogue thermographs which recorded data on paper strip charts that were subsequently digitized upon recovery for processing. These instruments had a temperature range of -5 to 25°C with an accuracy of ±2.0 % or 0.6°C. The Ryan TempMentor Digital thermograph was introduced in the mid 1980s followed by digital Hugrún Seamon thermograph in the late 1980s. The Ryan TempMentor thermographs are small digital recording instruments, which can record up to 6361 temperature readings at sample intervals ranging from 1 second to 2 hours. This instrument has a range of -32 to 70°C with an accuracy of ±0.3°C. The Hugrún Seamon thermographs, introduced in the late 1980s are compact microprocessor controlled temperature recorders with the electronics and probe housed in a strong waterproof case. This instrument has a temperature range of -2.0 to 38.0°C with an accuracy of ± 0.1°C and a resolution of 0.05°C and can store up to 5400 temperature readings with sampling intervals from 1.0 second to 24.0 hours. The Vecom Minilog-T thermograph introduced in 1998 records up to 8064 temperature readings at sample intervals from 1 second to 6 hours. Two versions of this thermograph were used, one with a range of –4 to 20°C with an accuracy of ±0.2°C and a resolution of 0.1°C and one with a range of –5 to 35°C with an accuracy of ±0.3°C and a resolution of 0.2°C. During 1998 and 1999 all thermographs in use at the Department of Fisheries and Ocean's Northwest Atlantic Fisheries Centre in St. John's were digital manufactured by Hugrún and Vemco. The type of instrument is identified on the summary page for each deployment.

CALIBRATION

Each digital thermograph was calibrated prior to its deployment using temperature calibration facilities located at the Northwest Atlantic Fisheries Center. The sensor of each thermograph is submerged in a Guildline Model 5010 constant temperature water bath of 40% ethylene glycol and water where it is subjected to a series of known stable temperatures. The microprocessor bath control system provides constant cooling and heating for any temperature setting in the range -9.9 to 65.0°C. A controlled temperature is achieved in 10 to 15 minutes and maintained to within 0.002°C. Several thermographs are loaded at one time and recordings are made at -2.0, 0.0, 10.0, 15.0 and 20.0°C. Approximately 4 hours are required at each temperature setting to allow for stabilization of the water bath. The thermographs are then calibrated by entering the calibration data in a factory supplied software package. Data collected by these instruments are then automatically corrected when the data is down loaded to the computer. The calibrated thermographs are deployed to the field and returned to the oceanography section at NAFC after recovery.

DATA ANALYSIS

The data translation, calibration and down loading was carried out using the PC software supplied by the manufacturer of each instrument. All data were then archived into a common digital format on PCs for further processing using custom in-house software. Any large spikes in the data were edited and replaced by the average of the adjacent two valid points. Each temperature data time series was also trimmed by removing invalid data collected during deployment and recovery of the instrument.

DATA PRODUCTS

The quality controlled time series was used to generate monthly temperature statistics for each deployment. These included minimum and maximum temperature and the day that it occurred, the mean temperature, standard deviation, degree-day 0, degree-day 4 and the number of samples for the month. It should be noted that although the statistics are generated for each month during the deployment, some months are incomplete so that the statistics only apply to the portion of the month in which there were observations. No attempts were made to extrapolate to the full month in these cases.

In this report we present a one page summary of the deployment, which includes; station name and station number, instrument type and serial number, station position and instrument deployment depth, water depth and sampling interval. A table of the monthly statistics follows for each deployment period. The complete data set for each station is then presented as a time series plot on a time scale of 120 days per panel. If the data record was more than 120 days, a second 120-day panel was produced beneath the first.

A station location map is also provided with each time series plot. The boundaries of the unit fishing areas in the inshore regions defined by the Department of Fisheries and Oceans are shown in Figure 1. The data in this report are organized in alphabetical order in each unit area starting in NAFO Division 2H and proceeding clockwise around the island of Newfoundland. Data from deployments in various freshwater rivers and ponds around Newfoundland are listed in a separate appendix at the end of the report in alphabetical order. For the purpose of processing, deployment sites were given a unique station number starting at 100 for each year. This report contains data from a total of 174 deployments of which 43 were in freshwater. A complete list of deployments during the two years is contained in the table of contents. Some of the time series actually started in 1997 but the instruments were not recovered until 1998. In some cases a duplicate data set is reported for some sites such as Comfort Cove, Stock Cove and Shag Rocks. The locations of all deployment sites during 1998 and 1999 are shown in Figure 2, identified by station number.

Acknowledgements

We thank the fisheries scientists at the Northwest Atlantic Fisheries Center for making the thermograph data available. It is our pleasure to acknowledge Dianne Keating, an engineering Co-op student for assistance in compiling this data report and for much of the data analysis.

BIBLIOGRAPHY

Gregory, D. and D. Dobson. 1978. Long-Term Temperature Monitoring Program Bedford Institute of Oceanography, Data Series, BI-D-78-7, ii+12 p.

Dobson, D., B. Petrie and S. Butters. 1981. Long-Term Temperature Monitoring Program, 1979. Bedford Institute of Oceanography, Data Series, BI-D-81-4, iii+153 p.

Dobson, D., B. Petrie and S. Butters. 1981. Long-Term Temperature Monitoring Program, 1979. Bedford Institute of Oceanography, Data Series, BI-D-81-3, iii+201 p.

Dobson, D., B. Petrie 1982. Long-Term Temperature Monitoring Program, 1981. Canadian Data Report of Hydrography and Ocean Sciences, no. 6: vii+297 p.

Dobson, D., B. Petrie 1983. Long-Term Temperature Monitoring Program, 1982, Scotia-Fundy, Gulf Regions. Canadian Data Report of Hydrography and Ocean Sciences, No. 10: vii+384 p.

Dobson, D., B. Petrie 1983. Long-Term Temperature Monitoring Program, 1982, Newfoundland Region. Canadian Data Report of Hydrography and Ocean Sciences No. 11: v+355 p.

Dobson, D., B. Petrie. 1984. Long-Term Temperature Monitoring Program, 1983. Scotia-Fundy Regions. Canadian Data Report of Hydrography and Ocean Sciences No. 22: vi+406 p.

Dobson, D., B. Petrie. 1984. Long-Term Temperature Monitoring Program, 1983. Newfoundland Region. Canadian Data Report of Hydrography and Ocean Sciences No. 21: vi+411 p.

Dobson, D., B. Petrie and P Stead. 1985. Long-Term Temperature Monitoring Program, 1984. Newfoundland Region. Canadian Data Report of Hydrography and Ocean Sciences. No. 34: v+333 p.

Walker, R. E., Dobson, D, and P Stead. 1986. Long-Term Temperature Monitoring Program, 1985. Scotia-Fundy, Gulf of St. Lawrence, and Newfoundland. Canadian Data Report of Hydrography and Ocean Sciences No. 49: ix+521 p.

Walker, R. E., Dobson, D. and P. Stead. 1987. Long-Term Temperature Monitoring Program, 1986. Scotia-Fundy, Gulf of Series, BI-D-81-4, iii+153 p.

Gregory, D. N., E. Verge, D. Dobson, and C. Smith. 1988. Long-Term Temperature Monitoring Program, 1987. Scotia-Fundy, Gulf of St. Lawrence, and Newfoundland. Canadian Data Report of Hydrography and Ocean Sciences, No. 65: vii+497 pp.

Gregory D.N., E. Verge, and P. Langille. 1989. Long-Term Temperature Monitoring Program 1988: Scotia-Fundy and Gulf of St. Lawrence. Can. Data Rep. Hydrogr. Ocean Sci. No. 74: vi+233 pp.

Gregory D.N., E. Verge, and P. Langille. 1990. Long-Term Temperature Monitoring Program 1989: Scotia-Fundy and Gulf of St. Lawrence. Can. Data Rep. Hydrogr. Ocean Sci. No. 84: vi+175 pp.

Gregory D.N., E. Verge, and P. Langille. 1991. Long-Term Temperature Monitoring Program 1990: Scotia-Fundy and Gulf of St. Lawrence. Can. Data Rep. Hydrogr. Ocean Sci. No. 93: vi+197 pp.

Colbourne, E. B., P. Stead, and S. Narayanan. 1990. Long-term temperature monitoring program 1988, Newfoundland Region. Can. Data Rep. Hydrogr. Ocean Sci. 90: vi + 324 pp.

Colbourne, E. B. and P. Stead. 1993. Long-term temperature monitoring program 1989, Newfoundland Region. Can. Data Rep. Hydrogr. Ocean Sci. No. 124: vi + 336 pp.

R. H. Loucks Oceanology Limited, Discovery Consultants and B. Petrie, 1991. Analyzing for climatological Information in the long term temperature monitoring program sea temperature time series. Can. Tech. Rep. Hydrogr. Ocean Sci., No. 132: viii + 209 pp.

Petrie, Brian and Francis Jordan, 1993. Nearshore, shallow-water temperature atlas for Nova Scotia, Can. Tech. Rep. Hydrogr. Ocean Sci., No. 145: v + 84 pp.

Gregory, D., E. Verge, and P. Langille. 1993. Long-Term Temperature Monitoring Program 1991/1992: Scotia-Fundy and the Gulf of St. Lawrence. Can. Data Rep. Hydrogr. Ocean Sci. 120: vi + 309 pp.

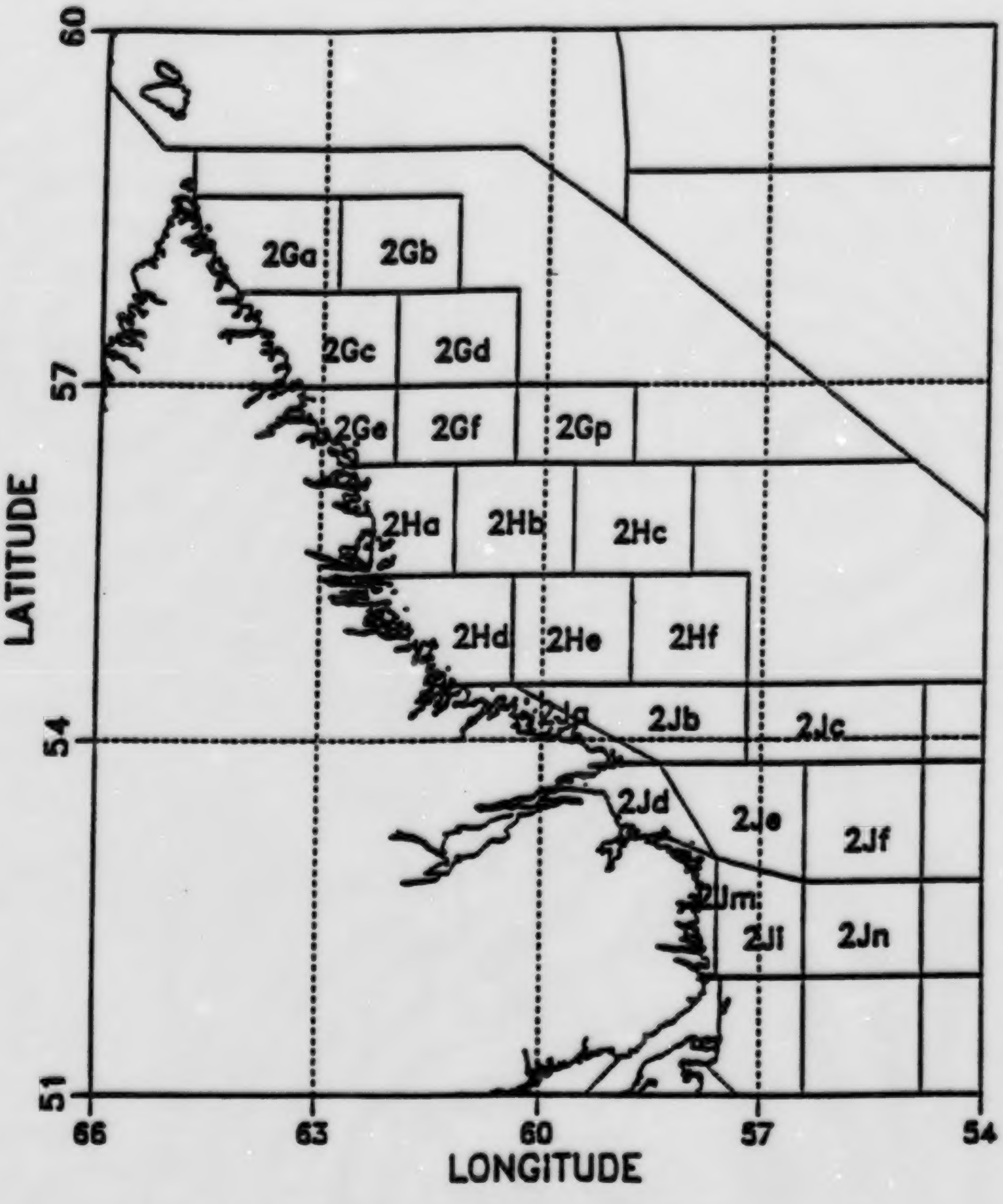
Gregory, D. N., E. Verge, P. Langille and S. Creaser. 1994. Long-Term Temperature Monitoring Program 1994: Scotia-Fundy and the Gulf of St. Lawrence. Can. Data Rep. Hydrogr. Ocean Sci. 127: vi + 167 pp.

Colbourne, E. B., P. Stead and S. Narayanan. 1995. Long-term temperature monitoring program 1990-1993, Newfoundland Region. Can. Tech. Rep. Hydrogr. Ocean Sci. 168: x + 482 p.

S. Narayanan, E. B. Colbourne and P. Stead. 1996. Temperature Climate Atlas for the Inshore Regions of Newfoundland and Labrador. Can. Tech. Rep. Hydrogr. Ocean Sci. 174: v + 181 p.

Colbourne, E. B.,and P. Stead. 1996. Long-term temperature monitoring program 1994-1995, Newfoundland Region. Can. Tech. Rep. Hydrogr. Ocean Sci. 179: vii + 299 p.

Colbourne, E. B.,and P. Stead. 1998. Long-term temperature monitoring program 1996-1997, Newfoundland Region. Can. Tech. Rep. Hydrogr. Ocean Sci. 198: ix + 397 p.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2Gc
2Gd
2Ge
2Gf
2Gp
2Ha
2Hb
2Hc
2Hd
2He
2Hf
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2Jb
2Jc
2Jd
2Je
2Jf
2Jm
2Jl
2Jn
60
57
54
51
LATITUDE
66
63
60
57
54
LONGITUDE

Figure 1a. Labrador inshore Unit Fishing Areas.

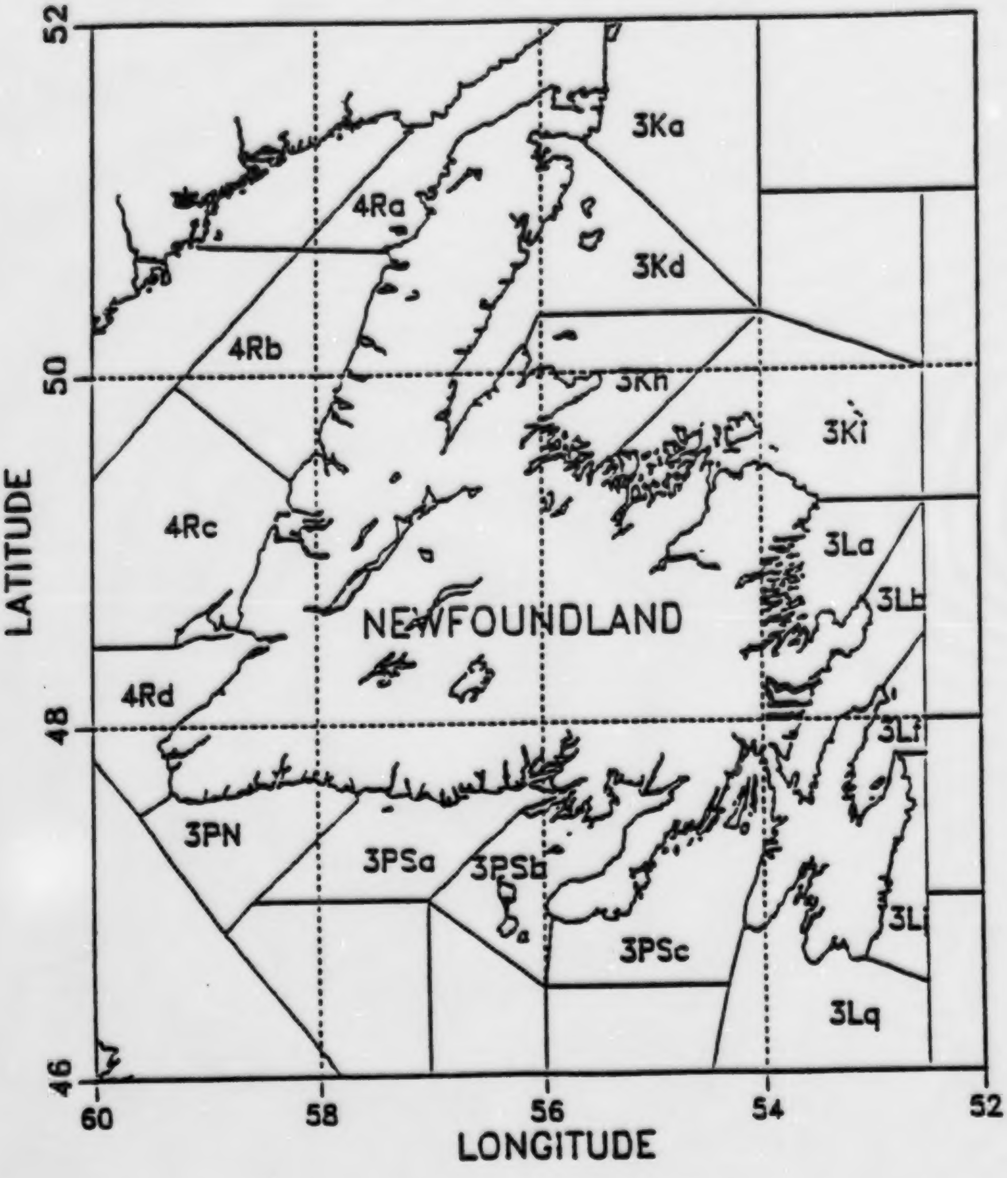
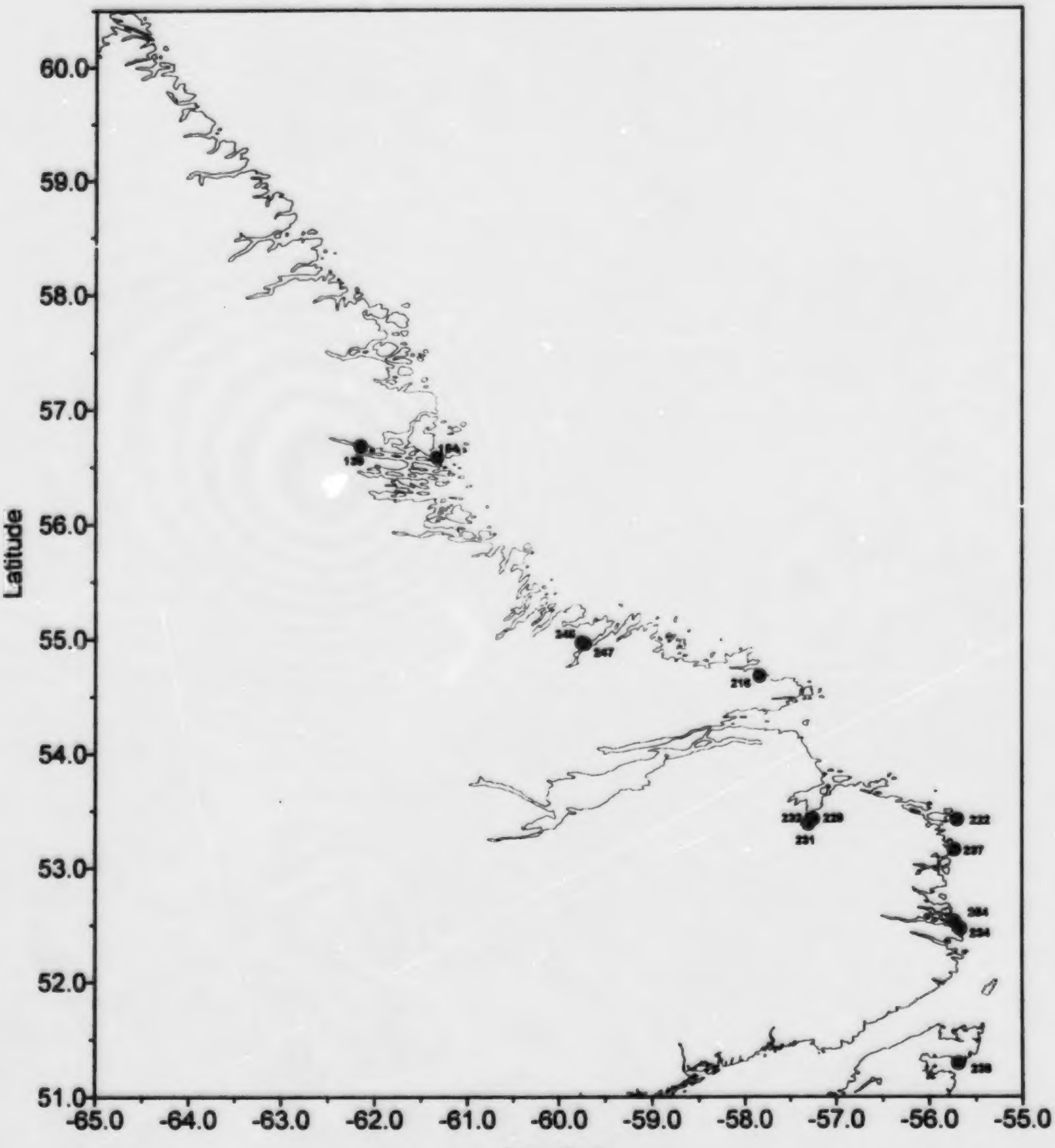

52
50
48
46
LATITUDE
60
58
56
54
52
LONGITUDE
NEWFOUNDLAND
3Ka
3Kd
3Kh
3Ki
3La
3Lb
3Lf
3Lj
3Lq
4Ra
4Rb
4Rc
4Rd
3PN
3PSa
3PSb
3PSc

Figure 1b. Newfoundland inshore Unit Fishing Areas.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Latitude
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-63.0
-62.0
-61.0
-60.0
-59.0
-58.0
-57.0
-56.0
-55.0
Longitude
246
247
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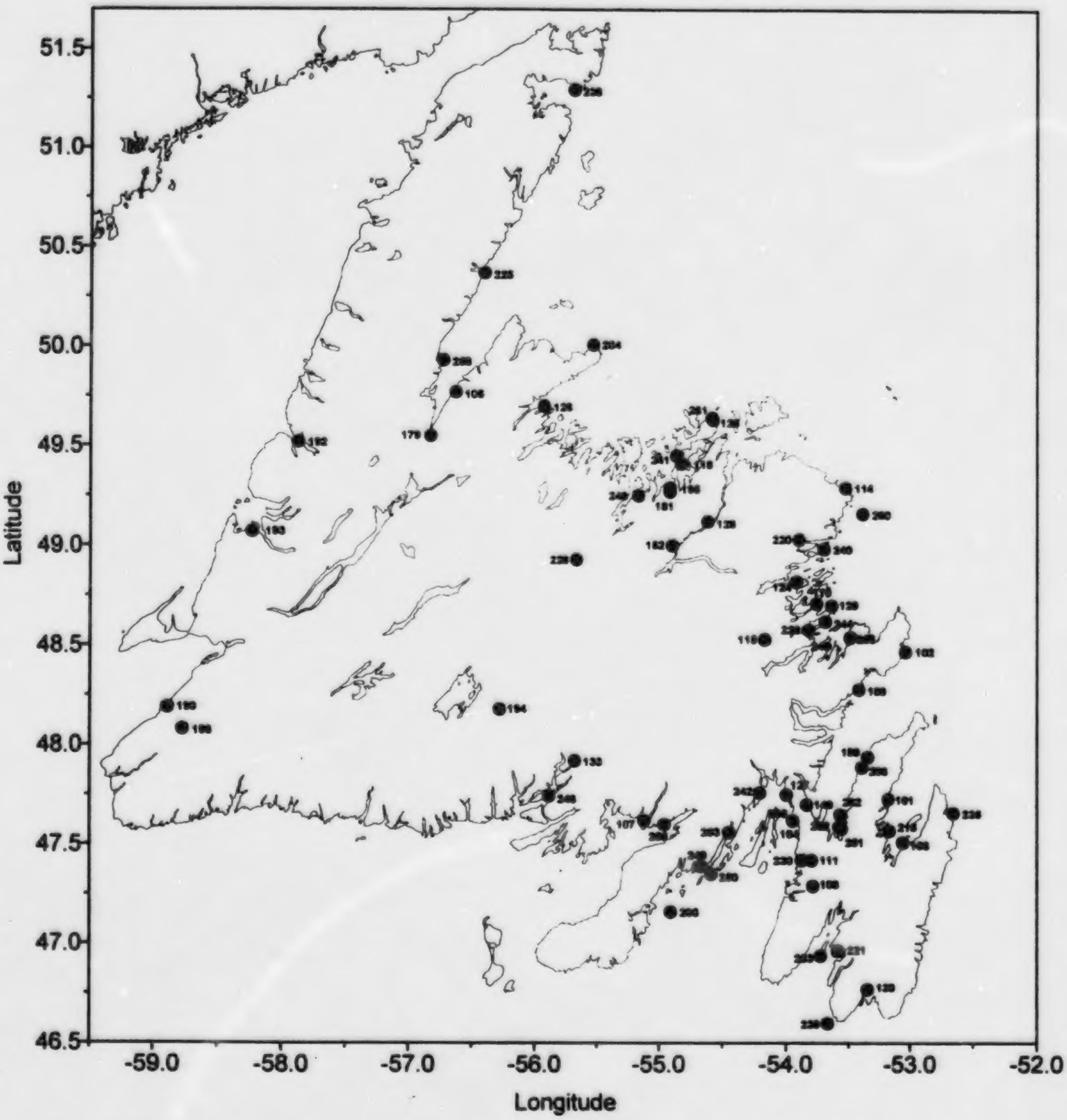
231
222
237
264
234
236

Figure 2a. The location of thermograph deployments in Labrador during 1998 and 1999. The labels indicate station numbers.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48.5
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47.0
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Latitude
-59.0
-58.0
-57.0
-56.0
-55.0
-54.0
-53.0
-52.0
Longitude

Figure 2b. The location of thermograph deployments in Newfoundland during 1998 and 1999. The labels indicate station numbers.

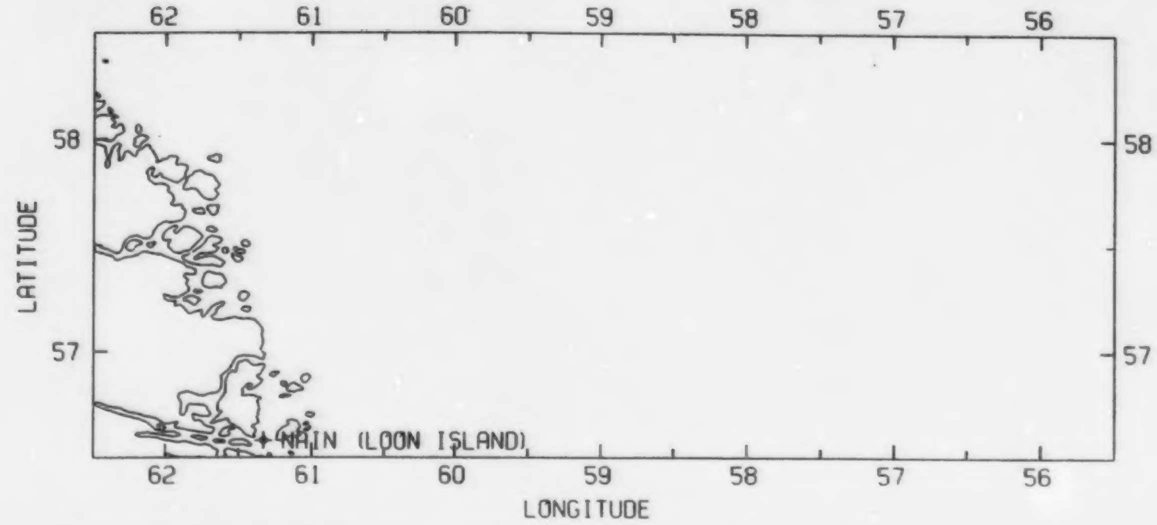
Appendix 1. Time Series Plots and Monthly Statistics from Unit Area 2Ge.

THERMOGRAPH DATA SUMMARY

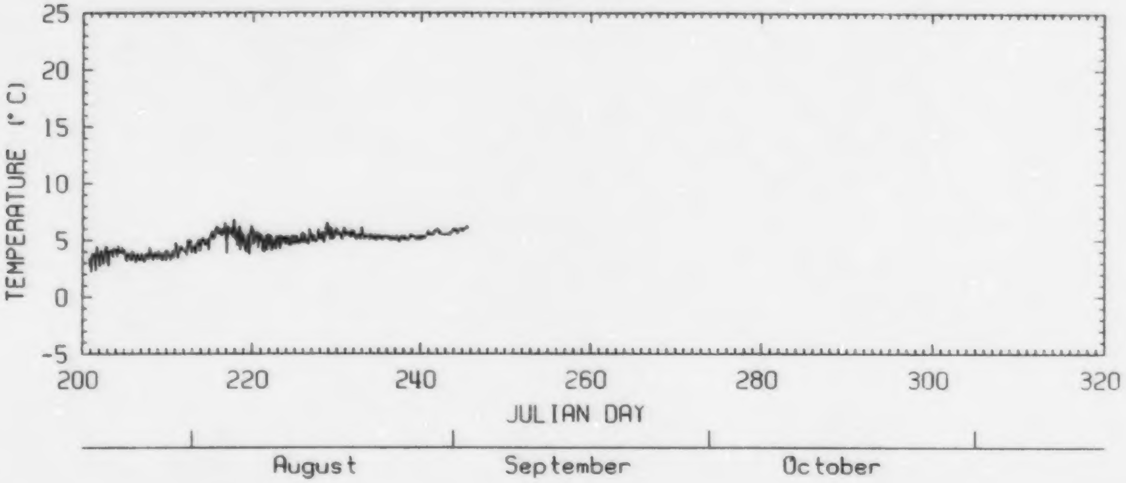
STATION NAME:	NAIN (LOON ISLAND)
STATION NUMBER:	154
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004352
LATITUDE:	56.58° N
LONGITUDE:	61.33° W
INSTRUMENT DEPTH:	3 m
WATER DEPTH:	3 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	19-JUL-1998 20:00 GMT
RECOVERY DATE/TIME:	2-SEP-1998 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	2.20	201	5.00	212	3.75	0.45	48.2	0.5	292
AUG-1998	3.70	219	6.80	217	5.24	0.46	162.6	38.6	744
SEP-1998	5.50	244	6.20	245	5.92	0.15	11.9	3.9	40
Total Period	2.20	201	6.80	217	4.87	0.83	222.7	43.0	1076



62
61
60
59
58
57
56
LATITUDE
58
57
NAIN (LOON ISLAND)
LONGITUDE



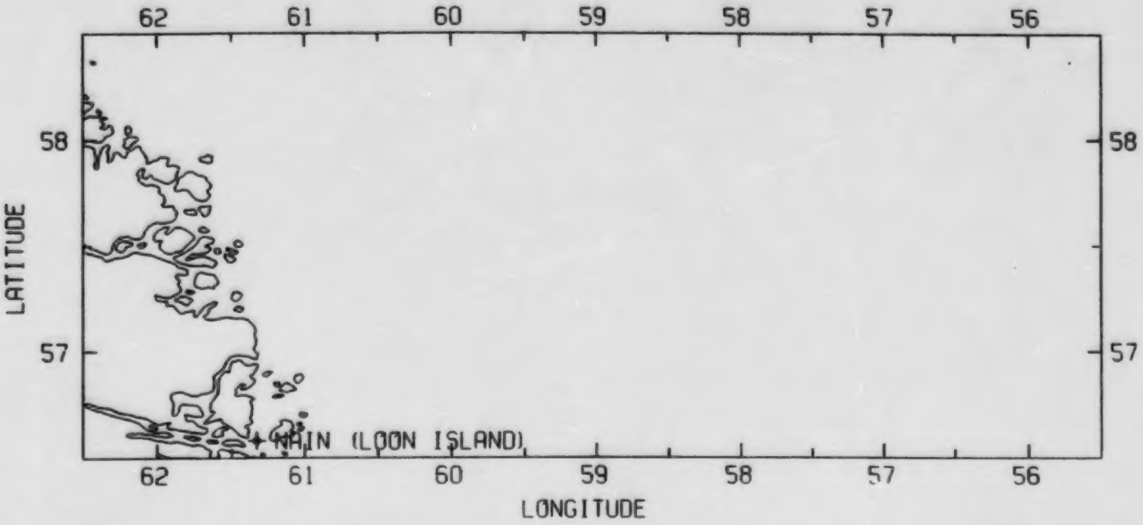
Start: 19-JUL-1998 End: 2-SEP-1998 Inst. S/N:4352

THERMOGRAPH DATA SUMMARY

STATION NAME:	NAIN (LOON ISLAND)
STATION NUMBER:	154
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006743
LATITUDE:	56.58° N
LONGITUDE:	61.33° W
INSTRUMENT DEPTH:	3 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-JUL-1999 20:00 GMT
RECOVERY DATE/TIME:	25-AUG-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	1.35	185	6.70	205	3.77	0.93	108.4	7.8	676
AUG-1999	3.05	218	6.40	234	5.01	0.60	125.2	25.2	593
Total Period	1.35	185	6.70	205	4.35	1.00	233.7	33.0	1269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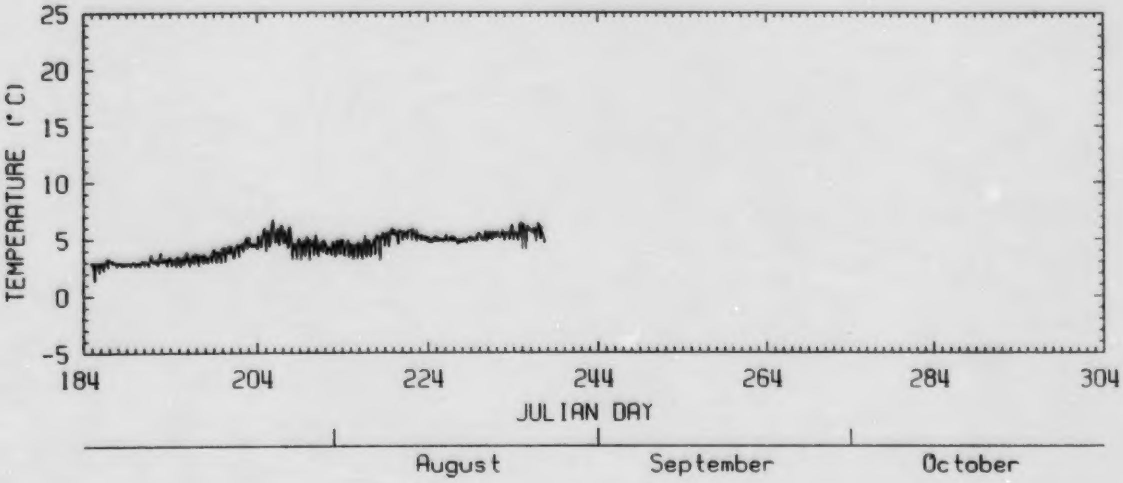
LATITUDE
NAIN (LOON ISLAND)
LONGITUDE



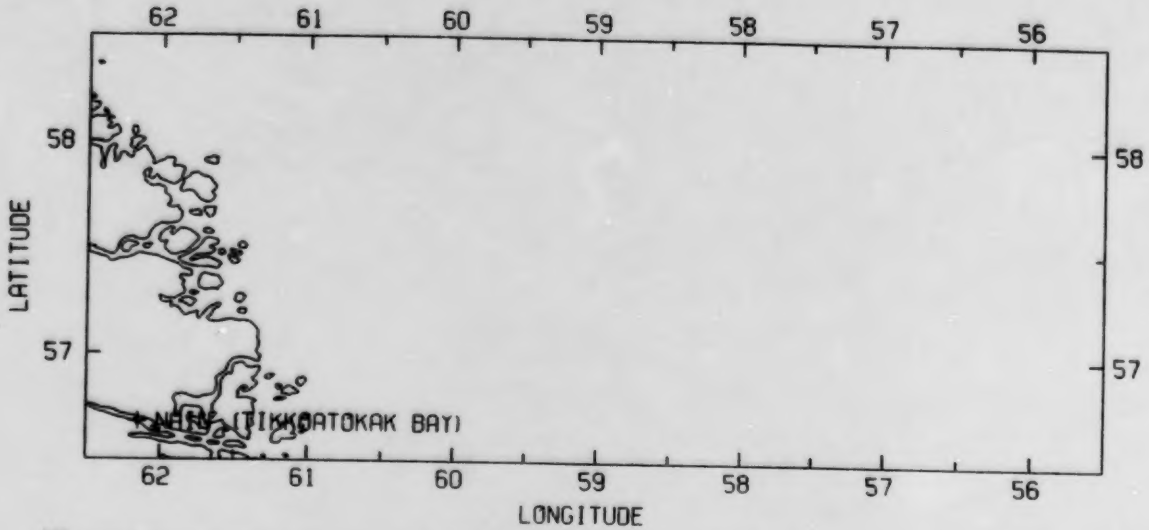
Start: 3-JUL-1999 End: 25-AUG-1999 Inst. S/N:6743

THERMOGRAPH DATA SUMMARY

STATION NAME:	NAIN (TIKKOATOKAK BAY)
STATION NUMBER:	139
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004353
LATITUDE:	56.68° N
LONGITUDE:	62.15° W
INSTRUMENT DEPTH:	3 m
WATER DEPTH:	10 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	11-JUL-1998 19:00 GMT
RECOVERY DATE/TIME:	2-SEP-1998 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	2.50	196	9.80	202	5.02	1.40	104.4	20.8	485
AUG-1998	3.20	234	8.40	234	5.54	0.91	171.7	47.7	744
SEP-1998	5.00	245	6.20	244	5.79	0.30	11.5	3.5	41
Total Period	2.50	196	9.80	202	5.35	1.14	287.7	72.1	1270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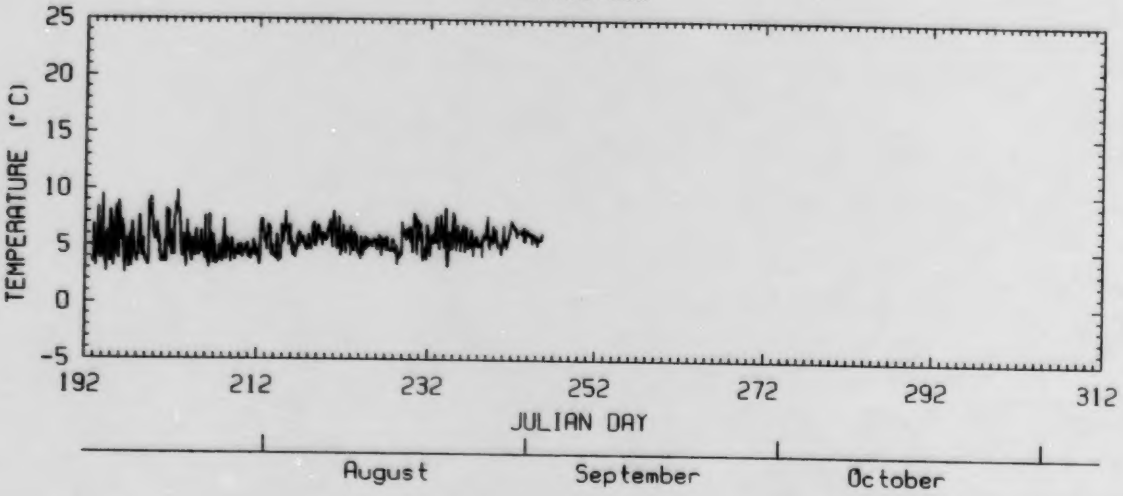
LATITUDE
+NAIN (TIKKOATOKAK BAY)
LONGITUDE



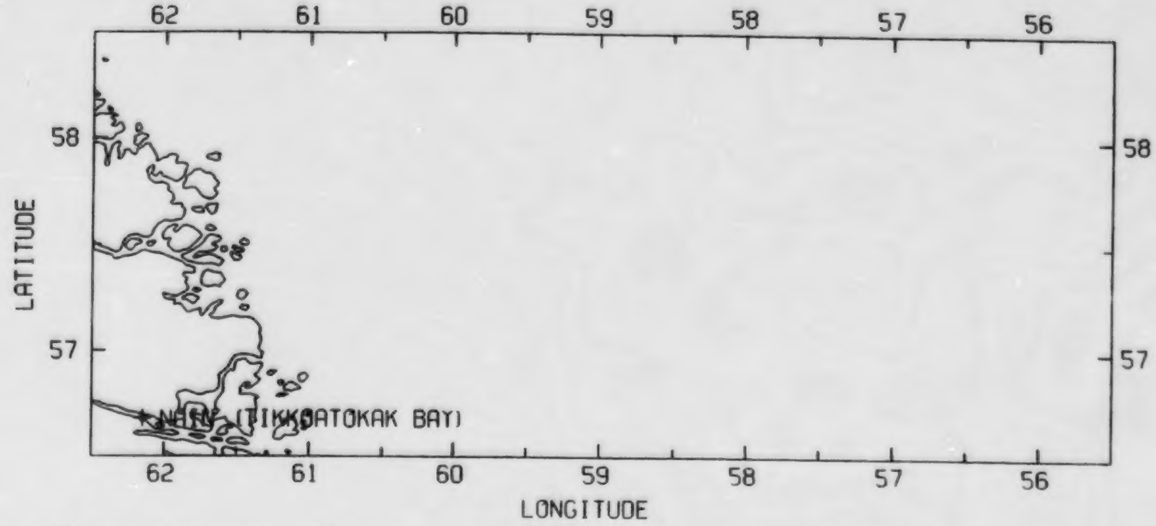
Start: 11-JUL-1998 End: 2-SEP-1998 Inst. S/N:4353

THERMOGRAPH DATA SUMMARY

STATION NAME:	NAIN (TIKKOATOKAK BAY)
STATION NUMBER:	139
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008955
LATITUDE:	56.68° N
LONGITUDE:	62.15° W
INSTRUMENT DEPTH:	3 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-JUL-1999 19:00 GMT
RECOVERY DATE/TIME:	25-AUG-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	2.05	193	9.65	211	4.47	1.47	130.1	17.5	677
AUG-1999	3.20	213	9.25	215	6.22	1.14	155.9	55.9	594
Total Period	2.05	193	9.65	211	5.29	1.59	286.0	73.4	1271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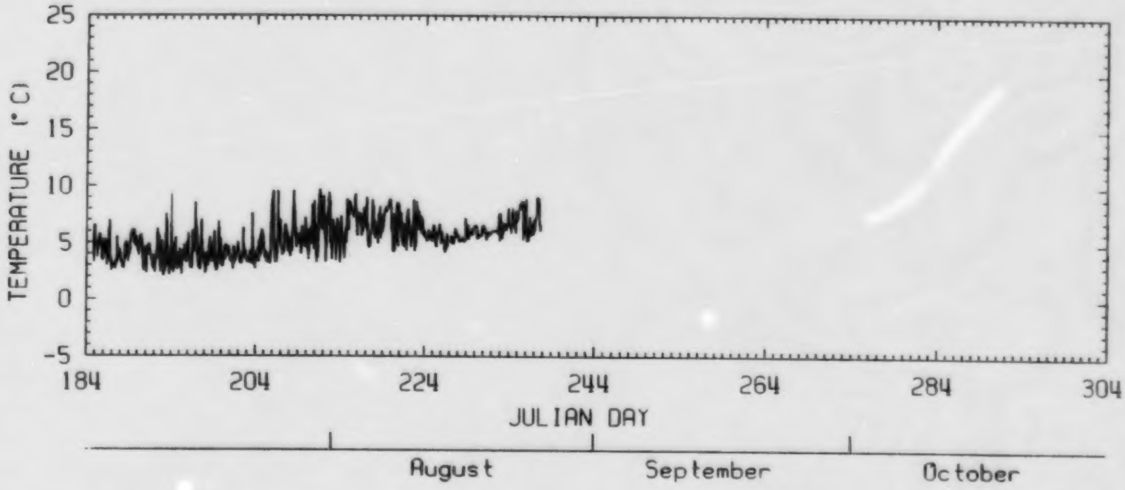
LATITUDE
+ NAIN (TIKKOATOKAK BAY)
LONGITUDE



Start: 3-JUL-1999 End: 25-AUG-1999 Inst. S/N:8955

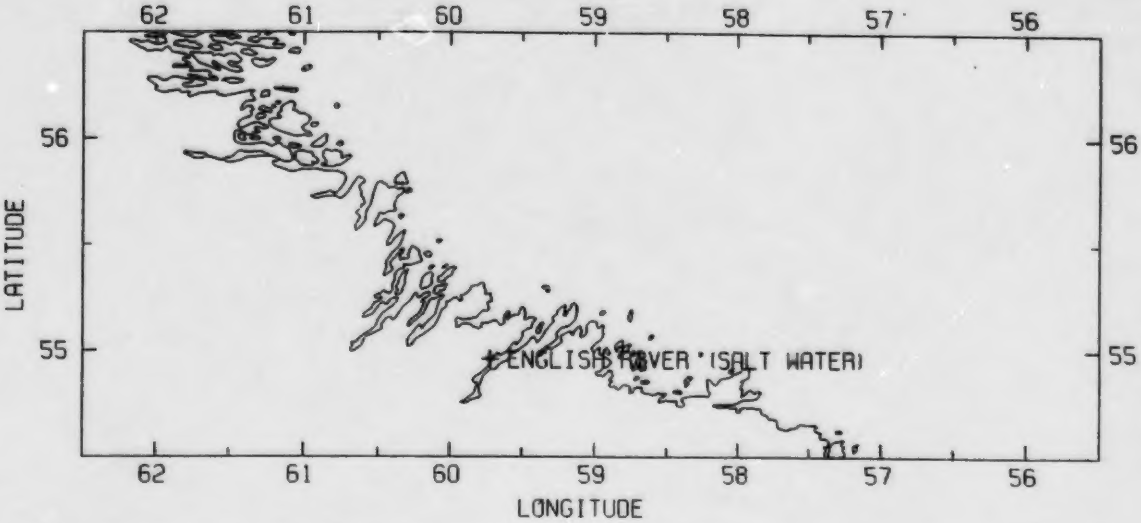
Appendix 2. Time Series Plots and Monthly Statistics from Unit Area 2Ja

THERMOGRAPH DATA SUMMARY

STATION NAME:	ENGLISH RIVER (SALT WATER)
STATION NUMBER:	247
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006431
LATITUDE:	54.96° N
LONGITUDE:	59.72° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-JUL-1999 13:00 GMT
RECOVERY DATE/TIME:	23-SEP-1999 18:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	6.50	194	15.40	212	11.14	1.96	321.9	205.9	683
AUG-1999	4.70	214	14.80	221	11.23	1.79	348.0	224.0	744
SEP-1999	7.10	264	11.50	254	9.82	0.88	225.5	133.5	547
Total Period	4.70	214	15.40	212	10.81	1.77	895.4	563.4	1974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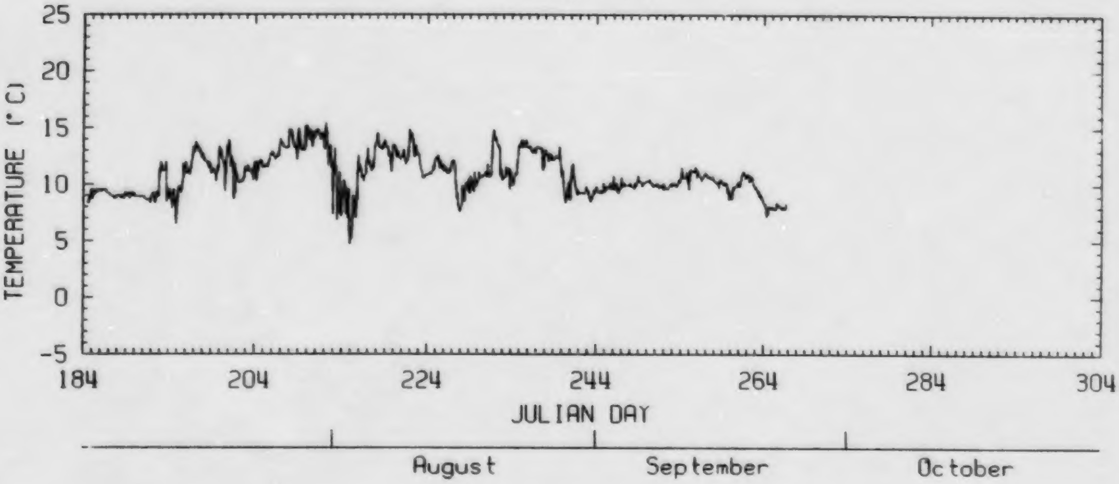
LATITUDE
LONGITUDE
+ENGLISH RIVER (SALT WATER)



Start: 3-JUL-1999 End: 23-SEP-1999 Inst. S/N:6431

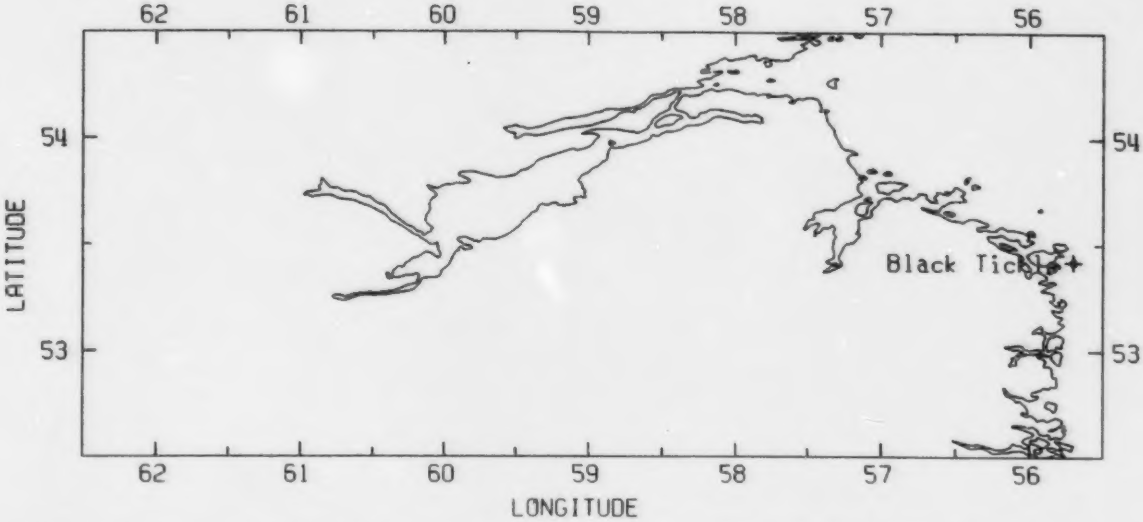
Appendix 3. Time Series Plots and Monthly Statistics from Unit Area 2Jm.

THERMOGRAPH DATA SUMMARY

STATION NAME:	Black Tickle
STATION NUMBER:	222
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004350
LATITUDE:	53.42° N
LONGITUDE:	55.70° W
INSTRUMENT DEPTH:	22 m
WATER DEPTH:	24 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	13-JUL-1998 20:00 GMT
RECOVERY DATE/TIME:	1-OCT-1998 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	-1.20	196	3.50	205	-0.18	0.88	4.2	0.0	436
AUG-1998	-0.80	215	6.60	241	1.17	1.34	37.1	0.9	744
SEP-1998	0.00	272	7.70	257	3.64	2.20	109.3	21.7	720
OCT-1998	0.40	274	3.40	274	1.17	0.73	1.2	0.0	18
Total Period	-1.20	196	7.70	257	1.79	2.24	151.8	22.6	1918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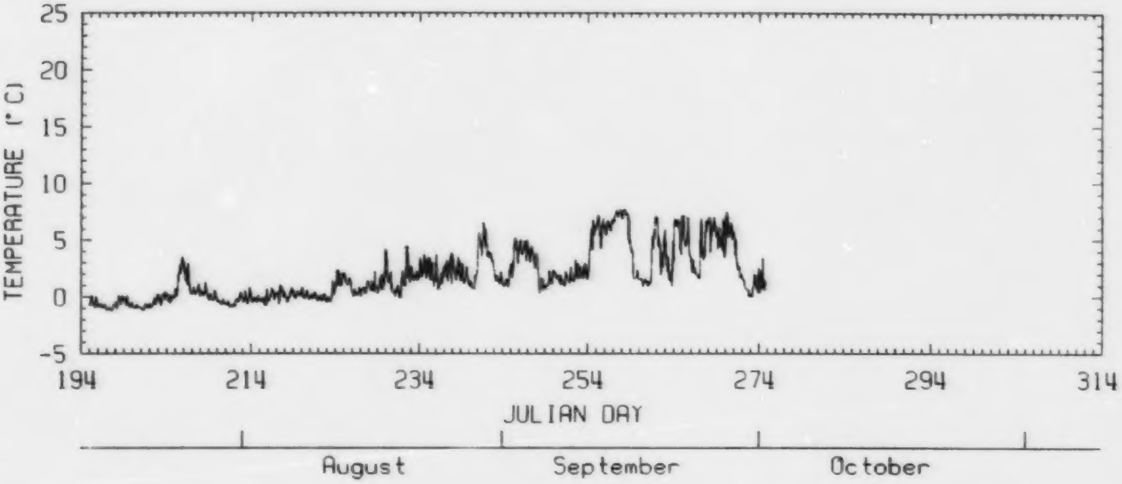
LATITUDE
LONGITUDE
Black Tickle



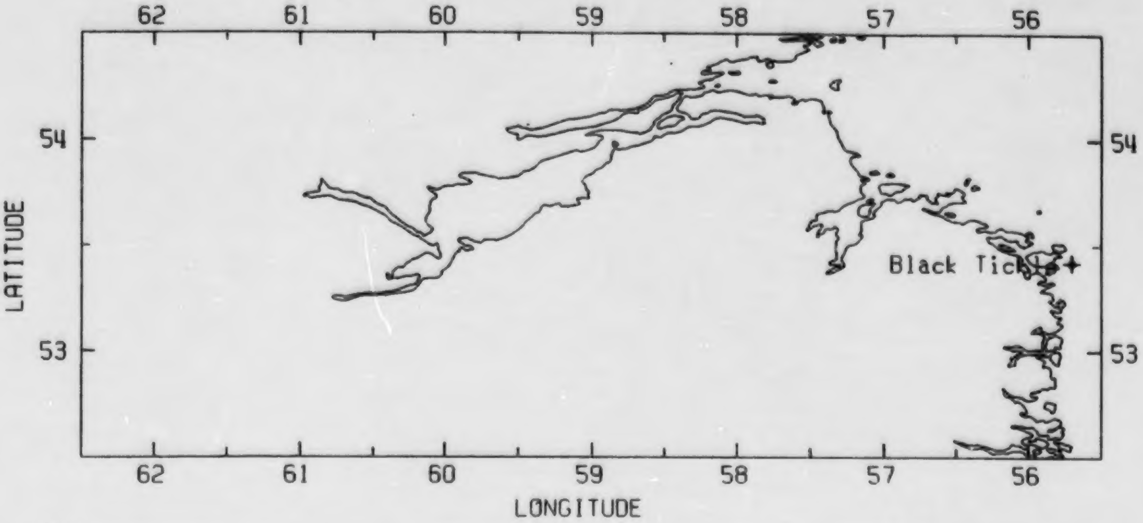
Start: 13-JUL-1998 End: 1-OCT-1998 Inst. S/N:4350

THERMOGRAPH DATA SUMMARY

STATION NAME:	Black Tickle
STATION NUMBER:	222
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	003826
LATITUDE:	53.42° N
LONGITUDE:	55.70° W
INSTRUMENT DEPTH:	32 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	10-AUG-1999 12:00 GMT
RECOVERY DATE/TIME:	29-SEP-1999 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	-0.80	222	7.00	243	1.24	1.67	27.5	1.2	516
SEP-1999	0.60	246	7.80	247	4.42	1.59	128.7	24.1	684
Total Period	-0.80	222	7.80	247	3.05	2.26	156.2	25.4	1200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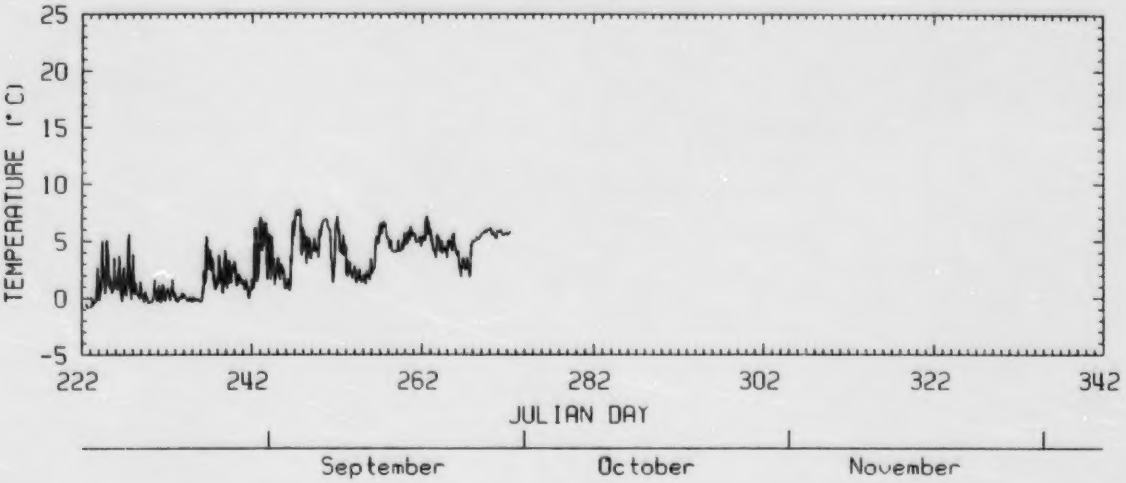
LATITUDE
LONGITUDE
Black Tickle



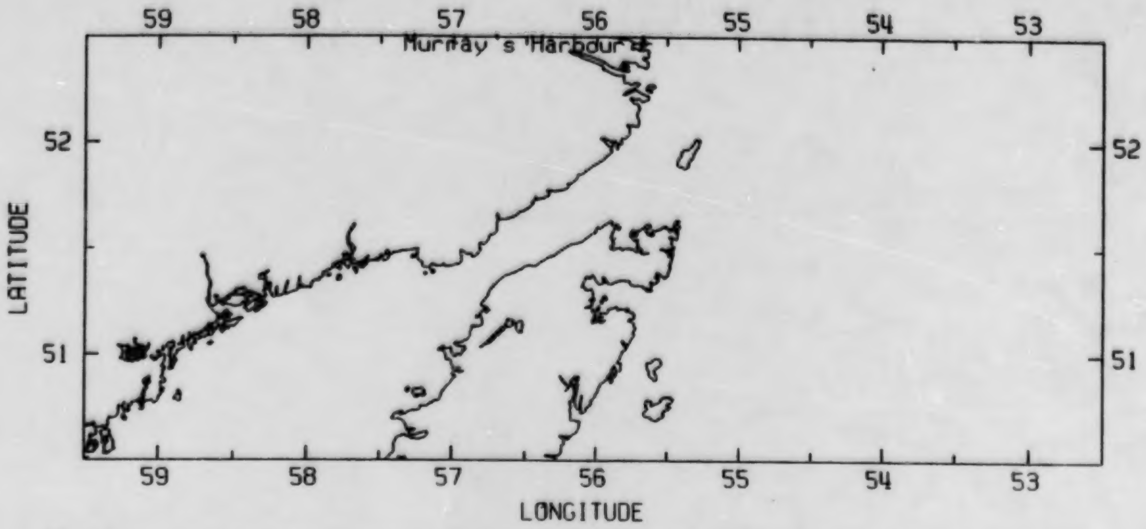
Start: 10-AUG-1999 End: 29-SEP-1999 Inst. S/N:3826

THERMOGRAPH DATA SUMMARY

STATION NAME:	Murray's Harbour
STATION NUMBER:	234
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004355
LATITUDE:	52.47° N
LONGITUDE:	55.67° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	11 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	20-JUL-1998 21:00 GMT
RECOVERY DATE/TIME:	5-OCT-1998 18:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	-0.60	212	7.30	207	2.20	2.06	26.0	3.2	267
AUG-1998	-0.30	214	12.20	224	7.53	2.99	233.4	121.1	744
SEP-1998	4.10	273	9.00	247	7.36	0.95	220.9	100.9	720
OCT-1998	-0.60	276	5.70	274	1.61	2.06	8.4	1.0	115
Total Period	-0.60	212	12.20	224	6.32	3.11	488.6	226.1	1846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Murray's Harbour
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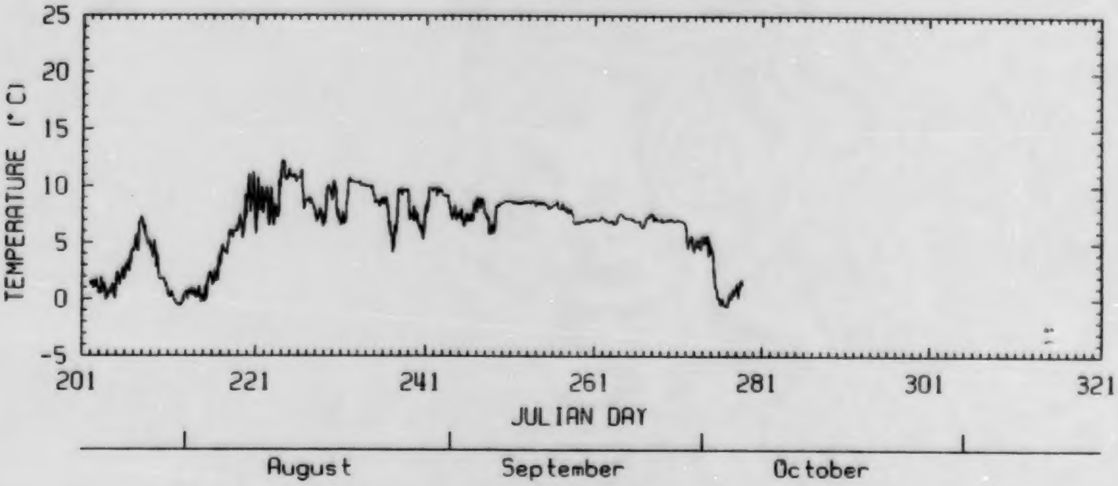
LATITUDE
LONGITUDE



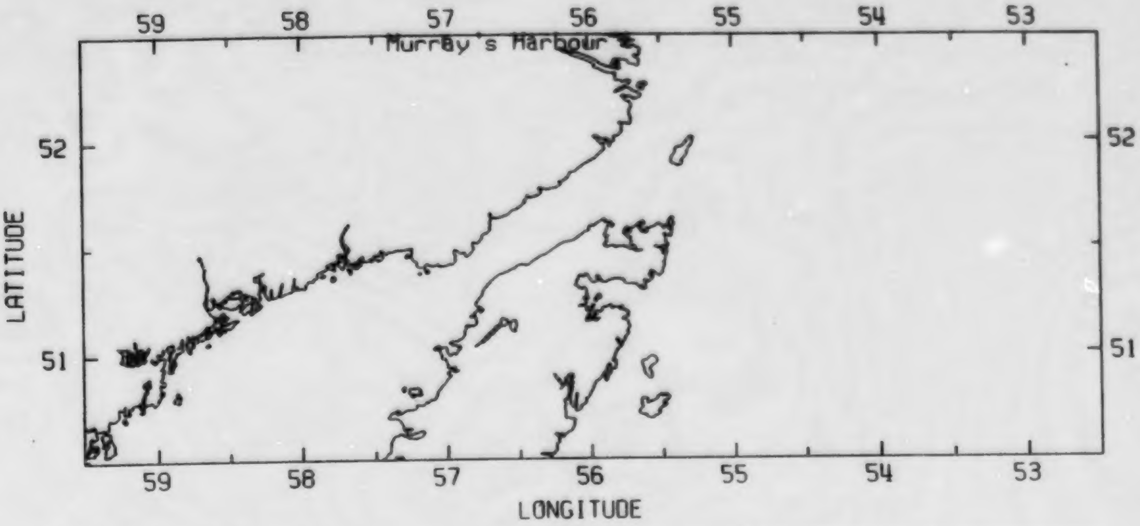
Start: 20-JUL-1998 End: 5-OCT-1998 Inst. S/N:4355

THERMOGRAPH DATA SUMMARY

STATION NAME:	Murray's Harbour
STATION NUMBER:	234
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	003828
LATITUDE:	52.47° N
LONGITUDE:	55.72° W
INSTRUMENT DEPTH:	2 m
WATER DEPTH:	11 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	26-JUL-1999 14:00 GMT
RECOVERY DATE/TIME:	6-OCT-1999 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	2.20	212	9.50	207	6.31	1.62	39.4	15.4	130
AUG-1999	0.00	214	10.20	239	6.99	2.41	216.8	99.7	744
SEP-1999	5.20	266	9.90	245	8.05	1.14	241.6	121.6	720
OCT-1999	4.30	277	7.60	276	6.20	0.64	37.2	13.2	132
Total Period	0.00	214	10.20	239	7.32	1.93	534.9	249.8	1726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Murray's Harbour
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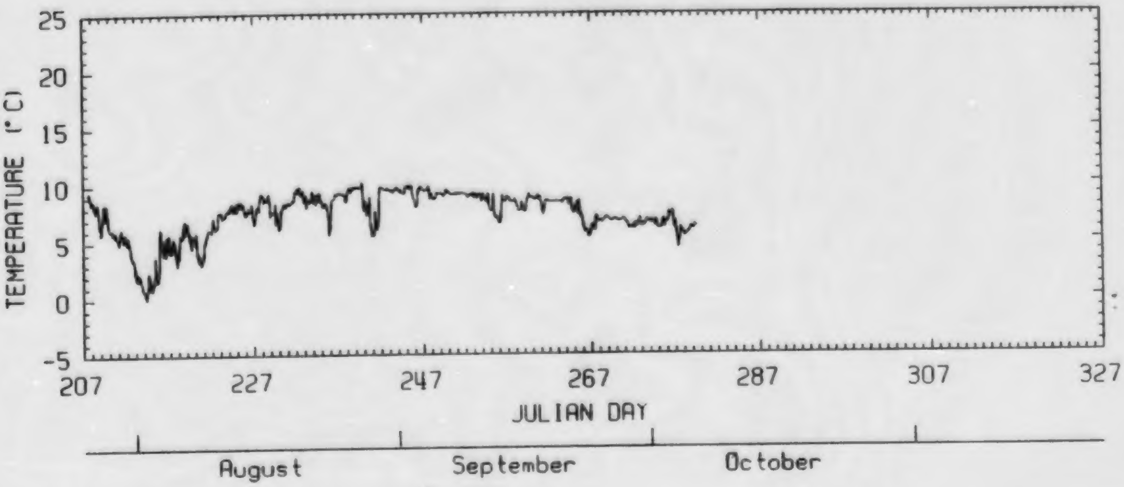
LATITUDE
LONGITUDE



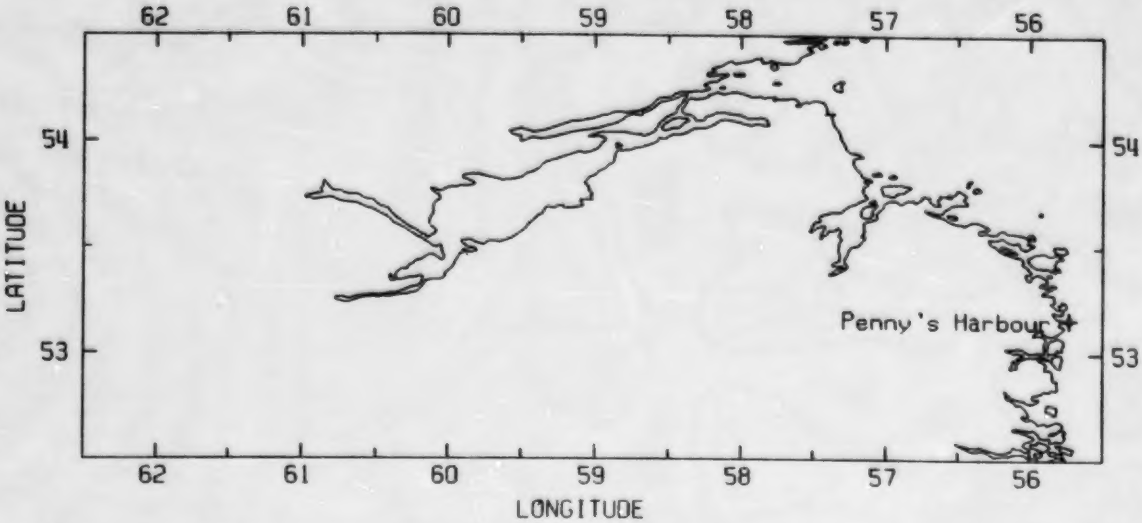
Start: 26-JUL-1999 End: 6-OCT-1999 Inst. S/N:3828

THERMOGRAPH DATA SUMMARY

STATION NAME:	Penny's Harbour
STATION NUMBER:	237
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004348
LATITUDE:	53.16° N
LONGITUDE:	55.73° W
INSTRUMENT DEPTH:	27 m
WATER DEPTH:	29 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	13-AUG-1998 18:00 GMT
RECOVERY DATE/TIME:	30-SEP-1998 09:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1998	0.00	240	9.10	232	3.24	1.96	61.3	5.8	438
SEP-1998	-0.10	273	7.60	250	5.44	1.98	160.1	52.7	706
Total Period	-0.10	273	9.10	232	4.60	2.24	221.3	58.5	1144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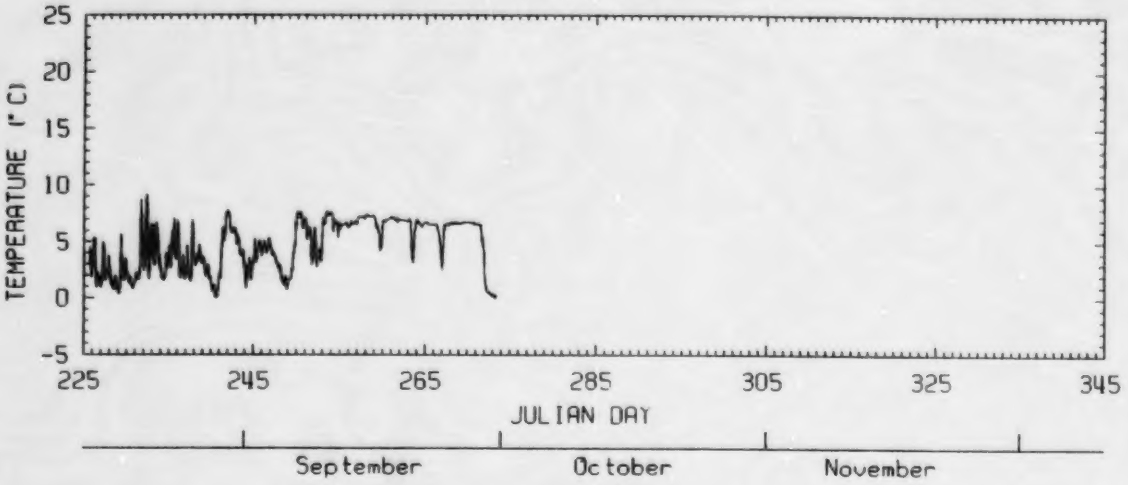
LATITUDE
LONGITUDE
Penny's Harbour



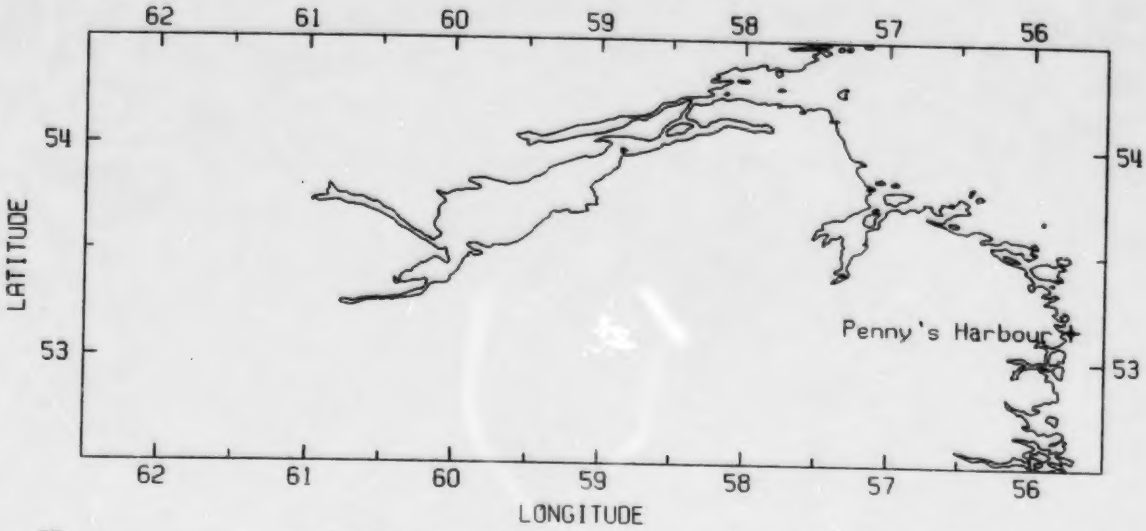
Start: 13-AUG-1998 End: 30-SEP-1998 Inst. S/N:4348

THERMOGRAPH DATA SUMMARY

STATION NAME:	Penny's Harbour
STATION NUMBER:	237
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	003820
LATITUDE:	53.16° N
LONGITUDE:	55.73° W
INSTRUMENT DEPTH:	31 m
WATER DEPTH:	32 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	4-AUG-1999 14:00 GMT
RECOVERY DATE/TIME:	22-SEP-1999 09:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	-0.80	220	5.20	242	0.12	0.71	7.3	0.0	658
SEP-1999	-0.20	246	8.80	246	2.36	1.60	51.3	1.0	514
Total Period	-0.80	220	8.80	246	1.10	1.63	58.6	1.0	1172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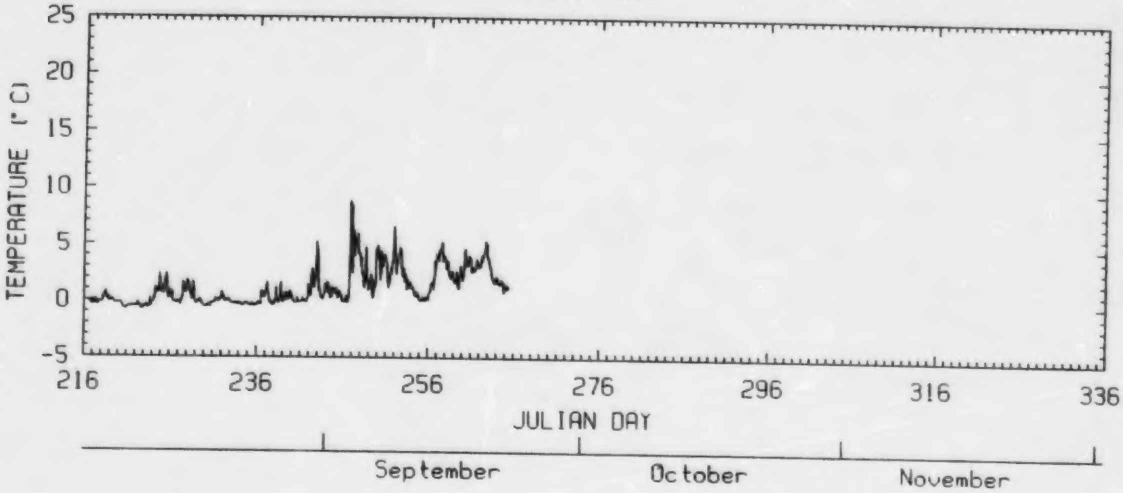
LATITUDE
LONGITUDE
Penny's Harbour



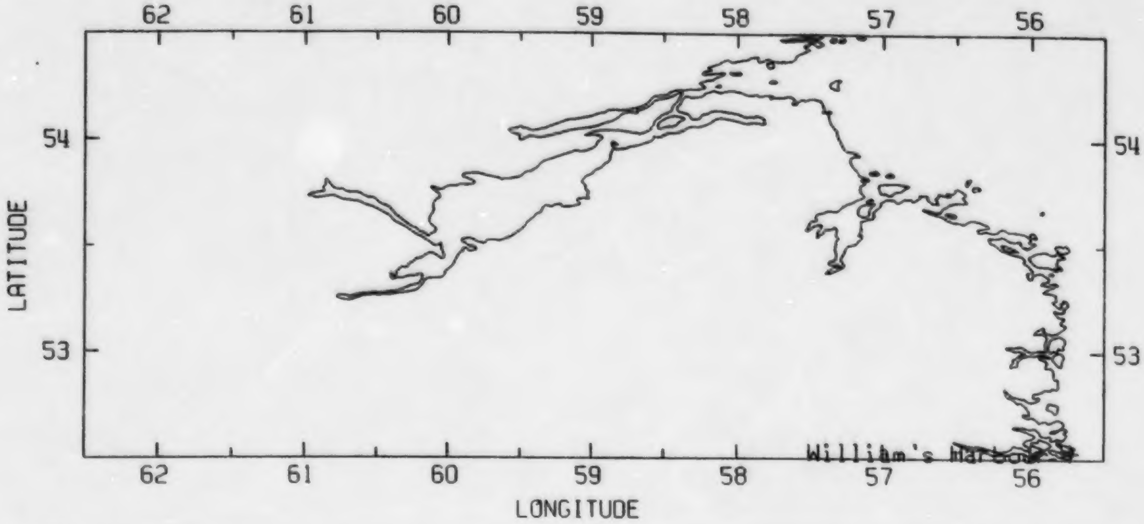
Start: 4-AUG-1999 End: 22-SEP-1999 Inst. S/N:3820

THERMOGRAPH DATA SUMMARY

STATION NAME:	William's Harbour
STATION NUMBER:	254
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007930
LATITUDE:	52.53° N
LONGITUDE:	55.73° W
INSTRUMENT DEPTH:	15 m
WATER DEPTH:	21 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	5-AUG-1999 18:00 GMT
RECOVERY DATE/TIME:	1-OCT-1999 09:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	-0.65	217	8.20	243	1.06	1.51	28.3	1.1	630
SEP-1999	0.10	256	8.70	250	4.67	1.96	140.2	34.0	720
OCT-1999	4.90	274	5.30	274	5.06	0.10	5.1	1.1	10
Total Period	-0.65	217	8.70	250	3.00	2.52	173.6	36.1	1360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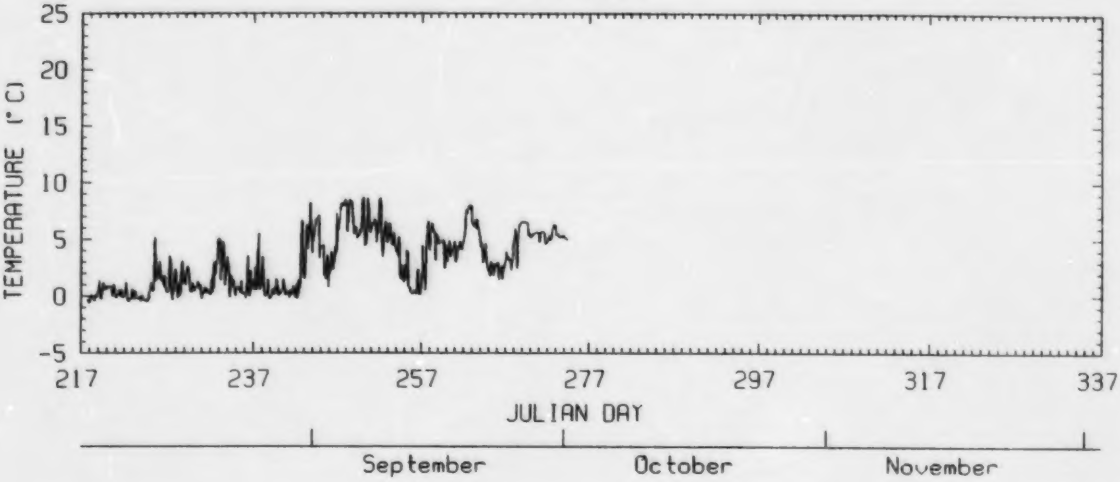
LATITUDE
LONGITUDE
William's Harbour



Start: 5-AUG-1999 End: 1-OCT-1999 Inst. S/N:7930

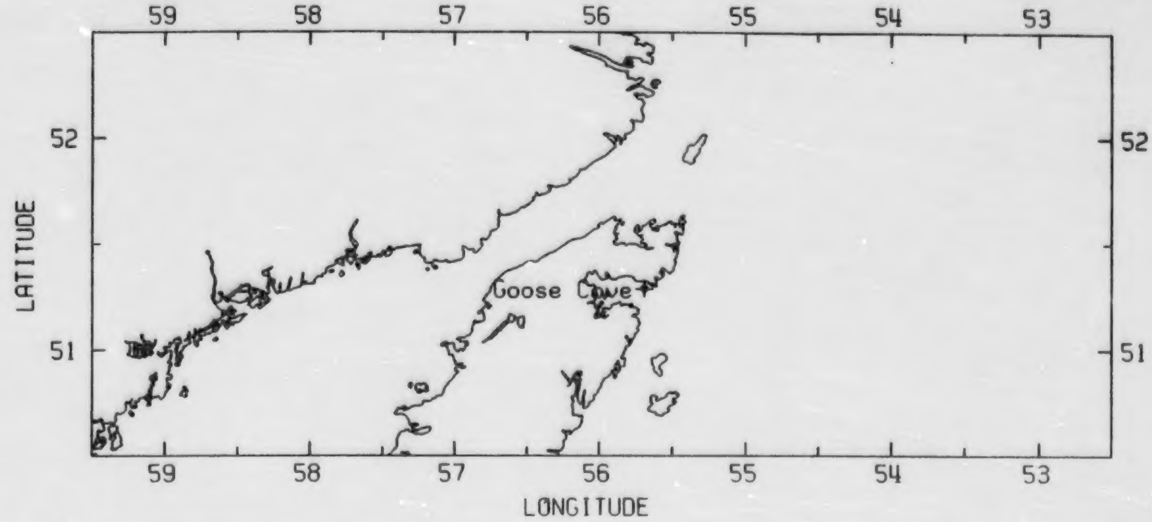
Appendix 4. Time Series Plots and Monthly Statistics from Unit Area 3Kd.

THERMOGRAPH DATA SUMMARY

STATION NAME:	Goose Cove
STATION NUMBER:	238
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006434
LATITUDE:	51.29° N
LONGITUDE:	55.69° W
INSTRUMENT DEPTH:	56 m
WATER DEPTH:	58 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	21-JUL-1998 12:00 GMT
RECOVERY DATE/TIME:	15-OCT-1998 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	-0.60	202	1.70	204	0.29	0.43	3.4	0.0	252
AUG-1998	-1.20	228	4.60	225	0.66	1.06	25.7	0.0	744
SEP-1998	-1.20	264	4.10	250	-0.44	0.57	2.2	0.0	720
OCT-1998	-0.30	274	2.80	281	1.17	0.72	17.7	0.0	351
Total Period	-1.20	228	4.60	225	0.32	1.00	48.9	0.0	2067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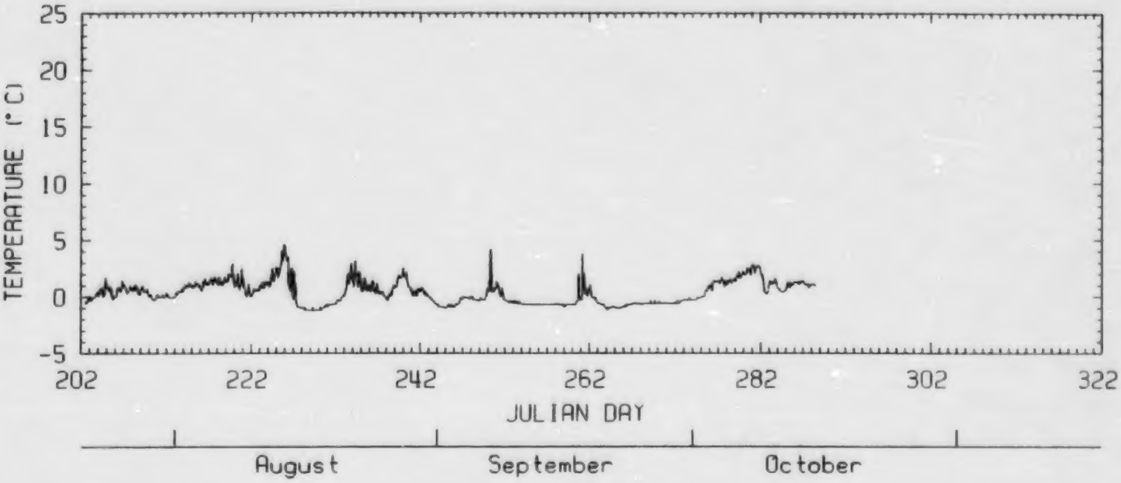
LATITUDE
Goose Cove
LONGITUDE



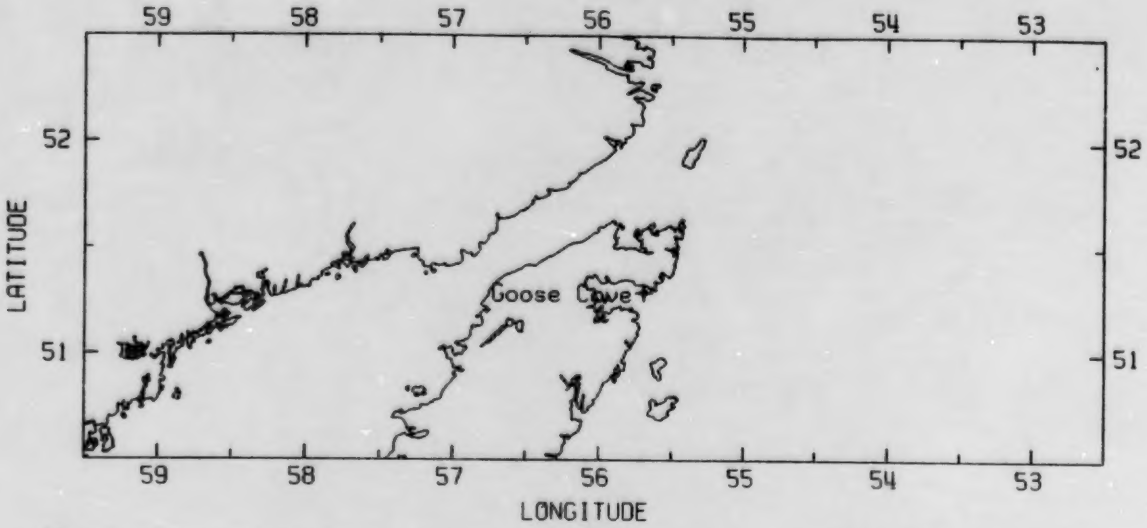
Start: 21-JUL-1998   End: 15-OCT-1998   Inst. S/N:6434

THERMOGRAPH DATA SUMMARY

STATION NAME:	Goose Cove
STATION NUMBER:	238
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004351
LATITUDE:	51.29° N
LONGITUDE:	55.69° W
INSTRUMENT DEPTH:	56 m
WATER DEPTH:	60 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	21-JUL-1999 23:00 GMT
RECOVERY DATE/TIME:	1-NOV-1999 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	-0.50	212	2.80	203	0.64	0.81	9.7	0.0	241
AUG-1999	-1.00	234	6.40	226	0.50	1.34	22.2	0.0	744
SEP-1999	-0.80	265	3.50	262	0.36	0.86	15.5	0.0	720
OCT-1999	-0.50	286	2.60	281	0.51	0.64	17.3	0.0	744
NOV-1999	0.60	305	0.70	305	0.63	0.05	0.6	0.0	12
Total Period	-1.00	234	6.40	226	0.47	0.98	65.4	0.0	2461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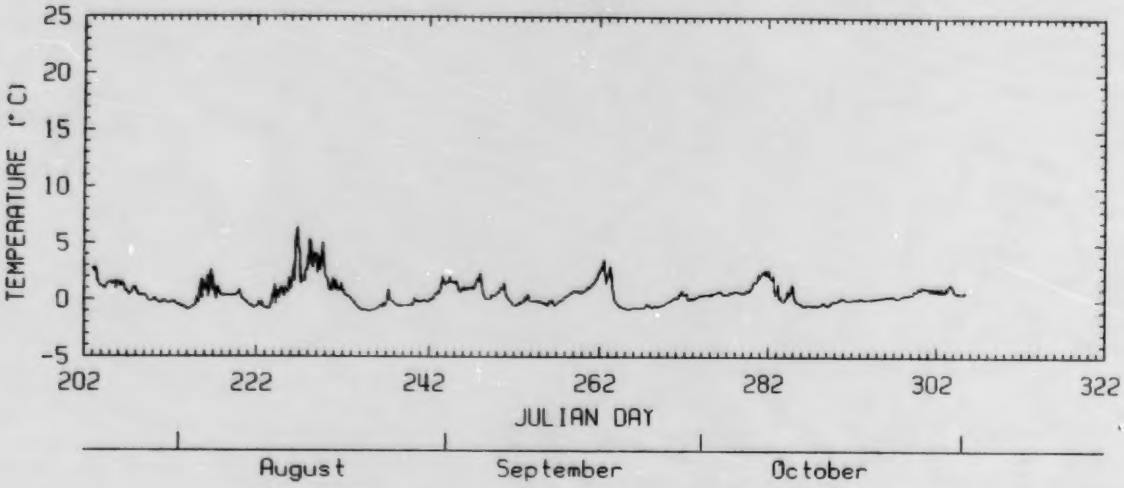


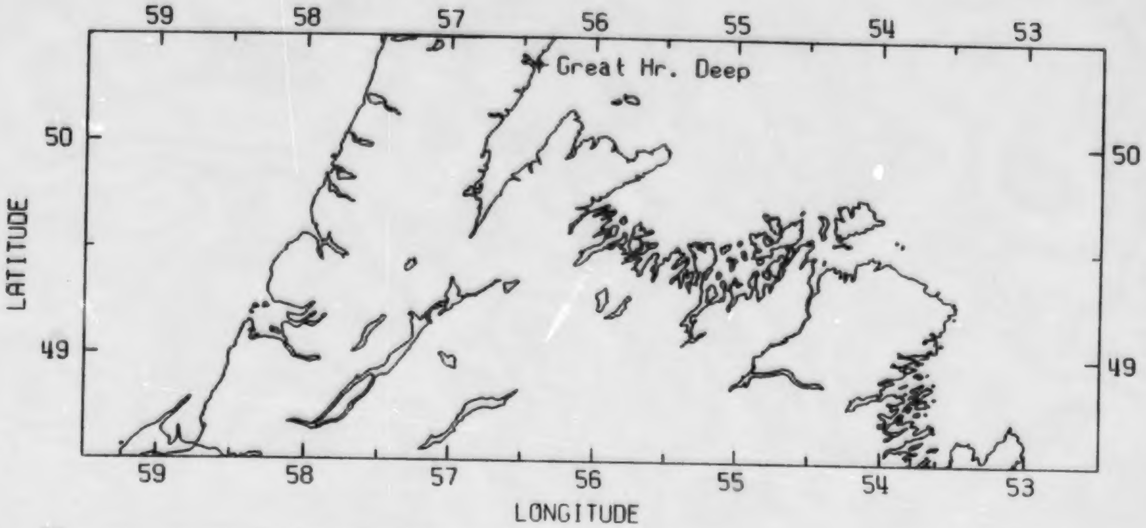
Start: 21-JUL-1999 End: 1-NOV-1999 Inst. S/N:4351

THERMOGRAPH DATA SUMMARY

STATION NAME:	Great Hr. Deep
STATION NUMBER:	225
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006248
LATITUDE:	50.37° N
LONGITUDE:	56.40° W
INSTRUMENT DEPTH:	46 m
WATER DEPTH:	49 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	29-JUN-1998 17:00 GMT
RECOVERY DATE/TIME:	29-OCT-1998 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	1.00	180	1.90	180	1.55	0.25	3.1	0.0	31
JUL-1998	-0.30	189	9.00	191	1.95	2.18	60.4	9.6	744
AUG-1998	-0.10	231	13.20	225	5.58	3.42	173.1	68.6	744
SEP-1998	-0.70	264	12.60	249	3.45	3.91	105.7	41.4	720
OCT-1998	-0.70	274	7.40	280	4.35	2.47	125.1	35.0	685
Total Period	-0.70	264	13.20	225	3.80	3.35	467.4	154.6	2924



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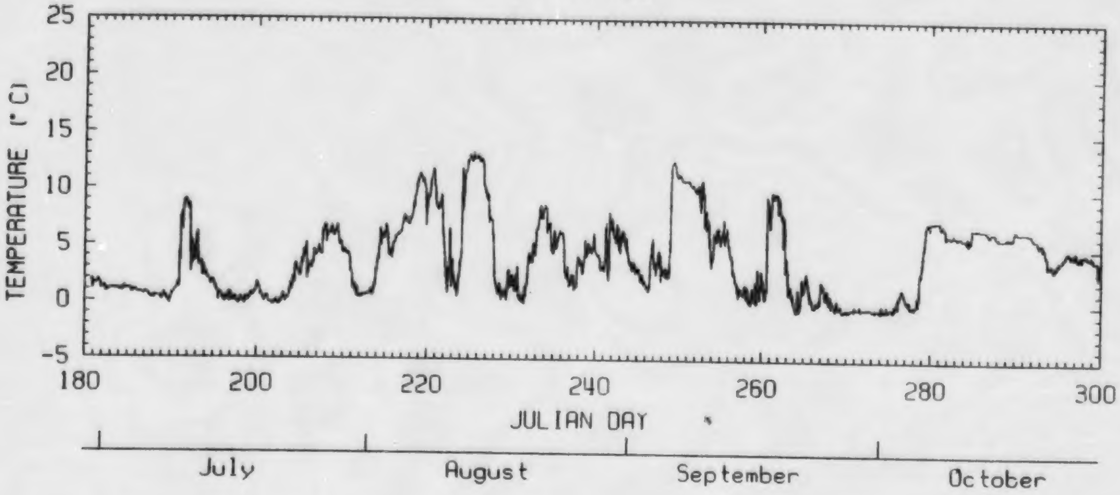
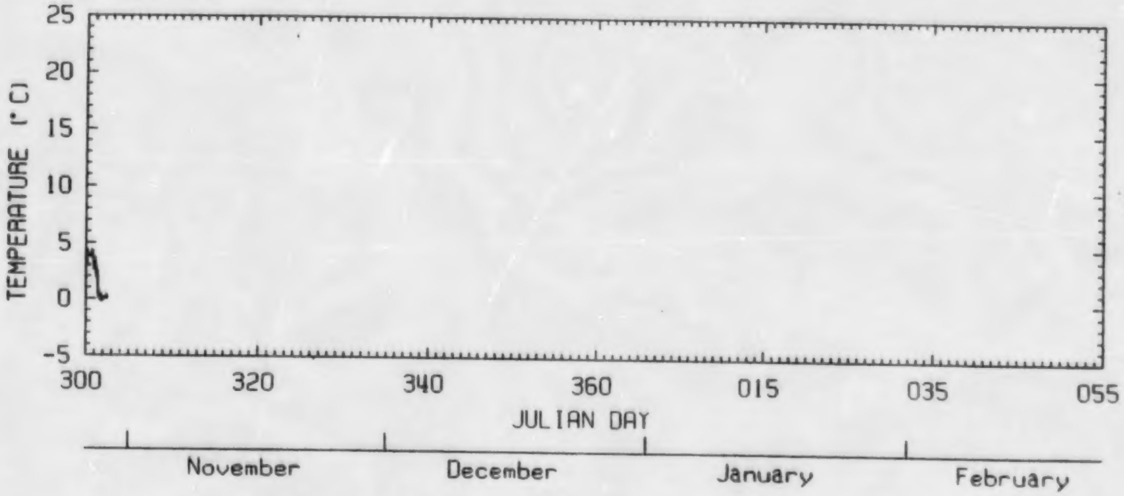
LONGITUDE





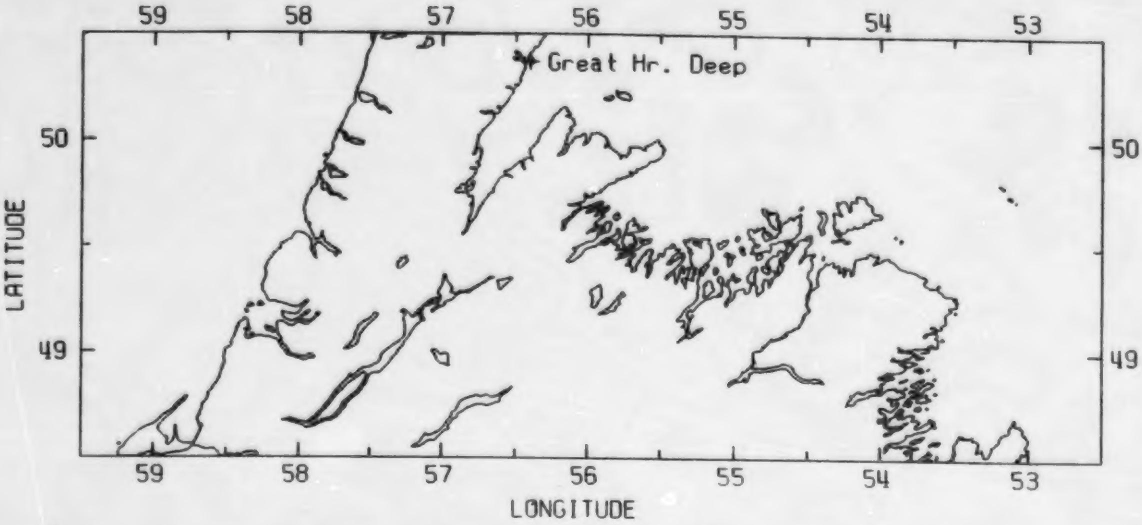
Start:29-JUN-1998 End:29-OCT-1998 Inst. S/N:6248

THERMOGRAPH DATA SUMMARY

STATION NAME:	Great Hr. Deep
STATION NUMBER:	225
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	003830
LATITUDE:	50.37° N
LONGITUDE:	56.40° W
INSTRUMENT DEPTH:	40 m
WATER DEPTH:	42 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	29-JUN-1999 12:00 GMT
RECOVERY DATE/TIME:	4-OCT-1999 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	2.40	180	3.50	180	2.87	0.20	5.7	0.0	36
JUL-1999	-0.90	183	6.00	201	1.88	1.67	59.8	2.3	744
AUG-1999	-1.20	222	10.50	232	2.56	3.06	81.6	23.4	744
SEP-1999	-1.00	268	11.20	247	3.11	2.83	94.0	22.5	720
OCT-1999	0.30	275	1.60	275	0.85	0.35	3.4	0.0	88
Total Period	-1.20	222	11.20	247	2.45	2.59	244.4	48.2	2332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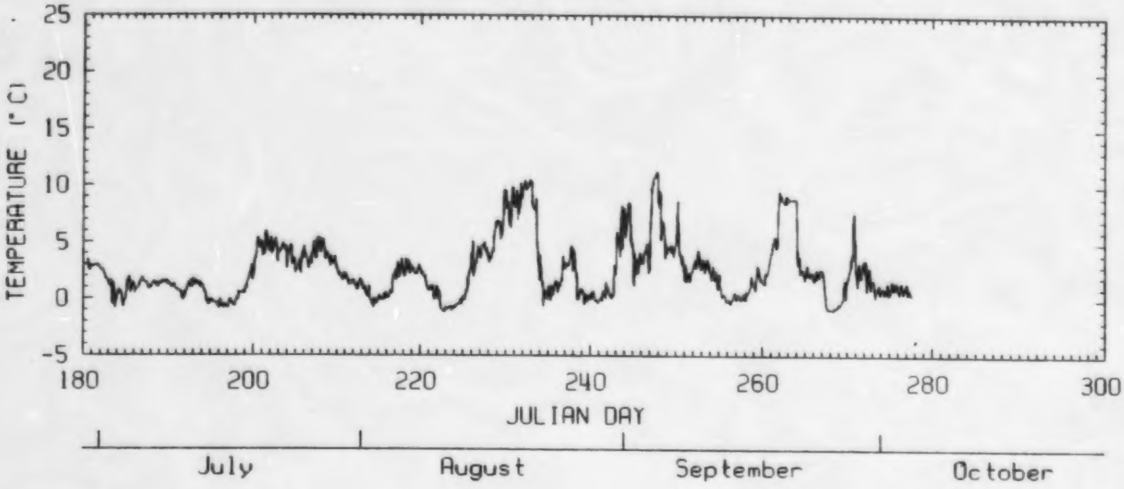
LATITUDE
LONGITUDE



Start: 29-JUN-1999 End: 4-OCT-1999 Inst. S/N:3830

THERMOGRAPH DATA SUMMARY

STATION NAME: HAMPDEN, WHITE BAY

STATION NUMBER: 179

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 005516

LATITUDE: 49.55° N

LONGITUDE: 56.83° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 46 m

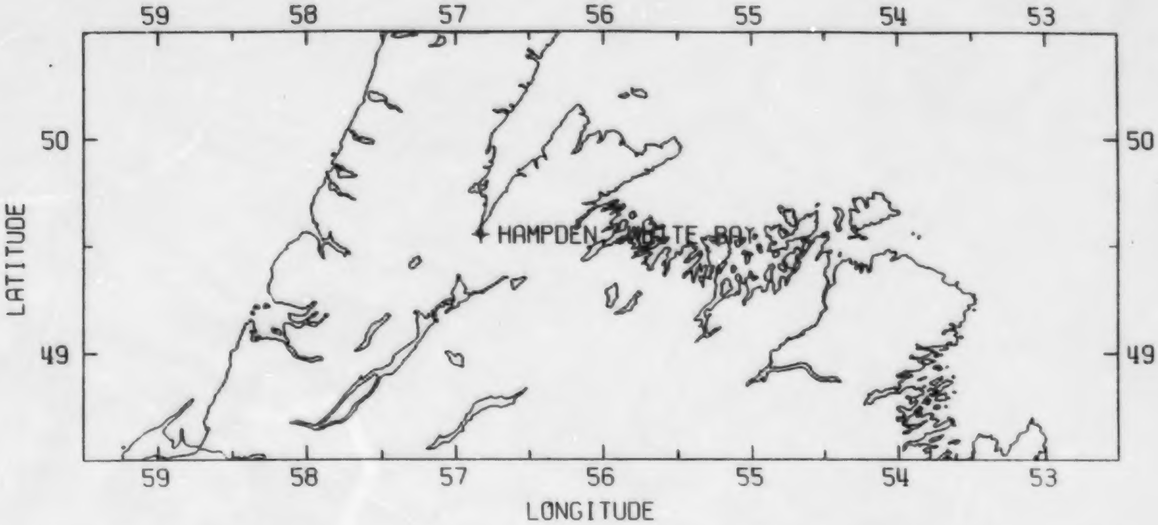
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 24-JUN-1998 23:00 GMT

RECOVERY DATE/TIME: 20-NOV-1998 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	0.00	176	9.55	179	3.49	3.48	21.4	7.2	145
JUL-1998	0.05	190	12.55	208	4.97	3.16	154.0	56.3	744
AUG-1998	3.20	213	13.55	242	9.92	2.89	307.5	183.6	744
SEP-1998	-0.60	273	13.65	248	9.97	4.18	299.5	189.3	720
OCT-1998	-1.40	277	6.60	285	4.03	3.16	131.4	45.1	744
NOV-1998	0.55	319	4.95	306	3.85	1.26	76.8	9.2	474
Total Period	-1.40	277	13.65	248	6.60	4.25	990.7	490.7	3571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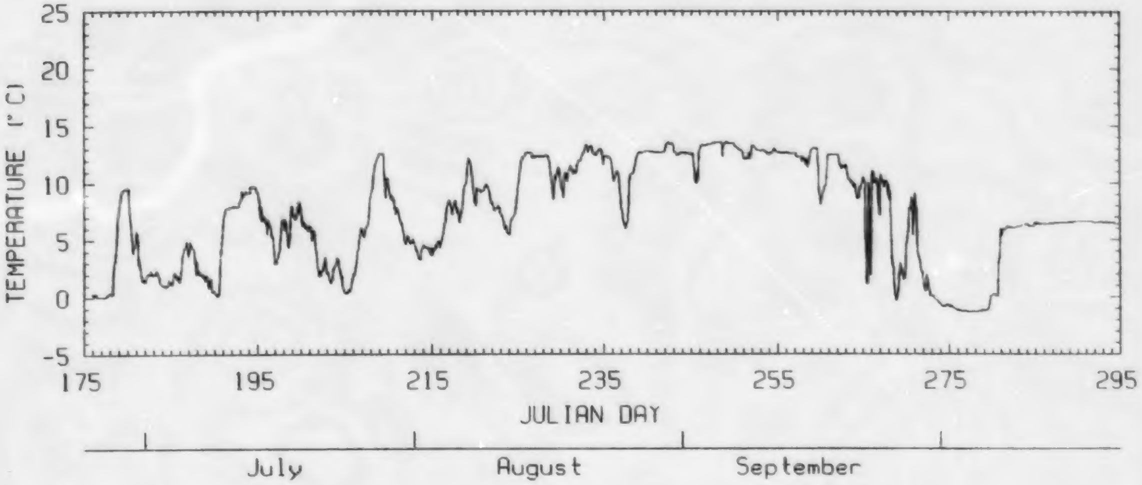
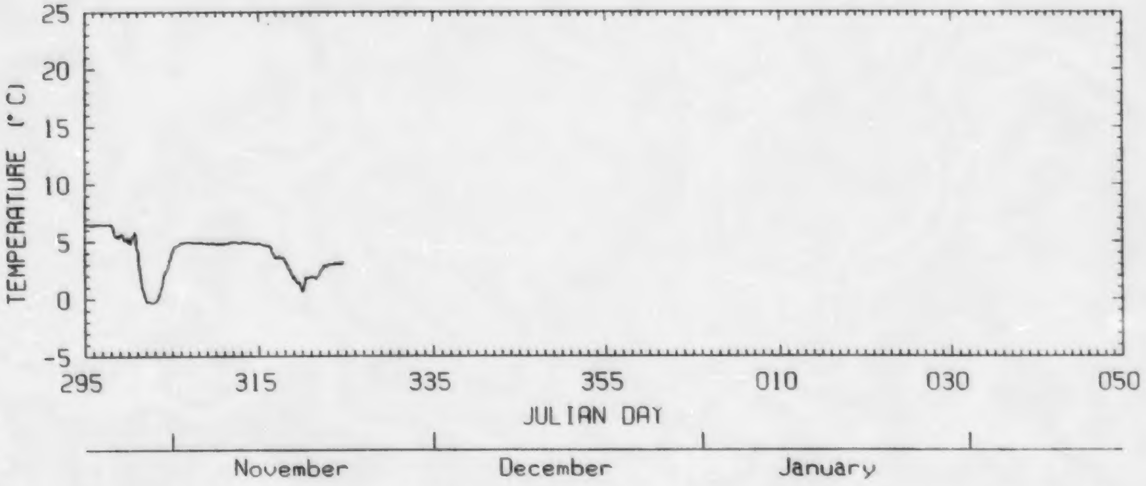
LATITUDE
HAMPDEN WHITE BAY
LONGITUDE





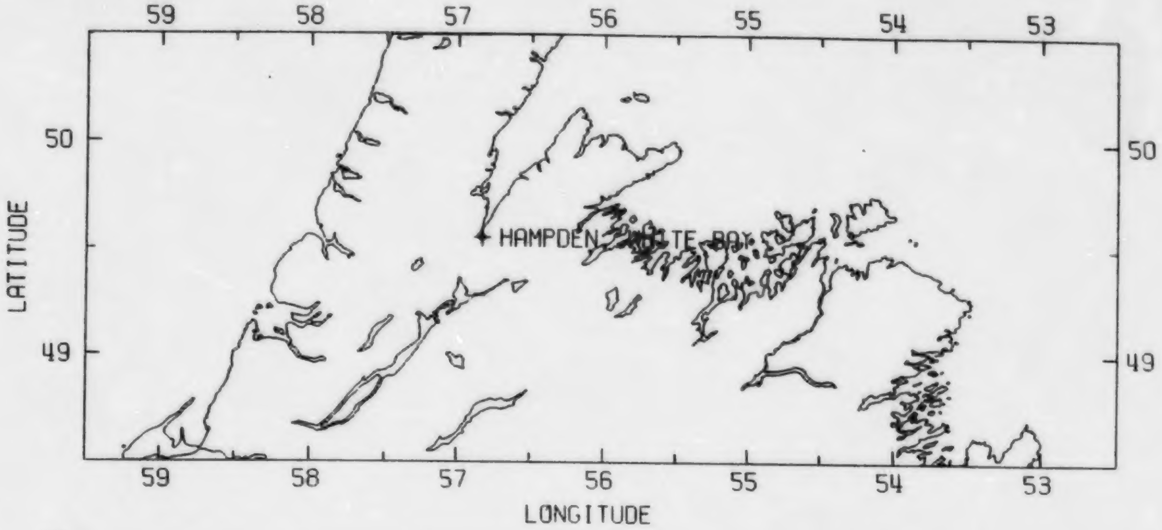
Start:24-JUN-1998 End:20-NOV-1998 Inst. S/N:5516

THERMOGRAPH DATA SUMMARY

STATION NAME:	HAMPDEN, WHITE BAY
STATION NUMBER:	179
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004354
LATITUDE:	49.55° N
LONGITUDE:	56.83° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	46 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	17-JUN-1999 14:00 GMT
RECOVERY DATE/TIME:	15-NOV-1999 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	-0.10	168	9.70	181	4.52	2.33	60.7	15.3	322
JUL-1999	-0.50	199	14.50	212	6.58	4.04	203.8	96.5	744
AUG-1999	-1.00	224	16.00	219	7.02	3.89	219.3	109.0	744
SEP-1999	3.10	268	12.50	253	10.21	2.01	306.3	186.3	720
OCT-1999	-0.50	289	9.70	281	5.00	3.16	155.1	60.0	744
NOV-1999	0.70	310	2.20	306	1.41	0.40	21.1	0.0	351
Total Period	-1.00	224	16.00	219	6.38	3.99	966.4	467.2	3625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LATITUDE
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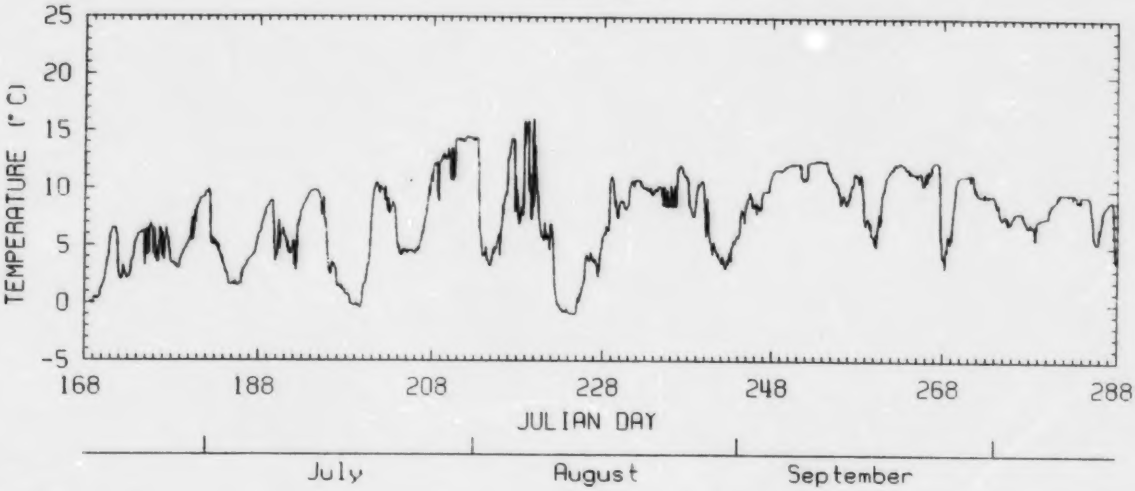
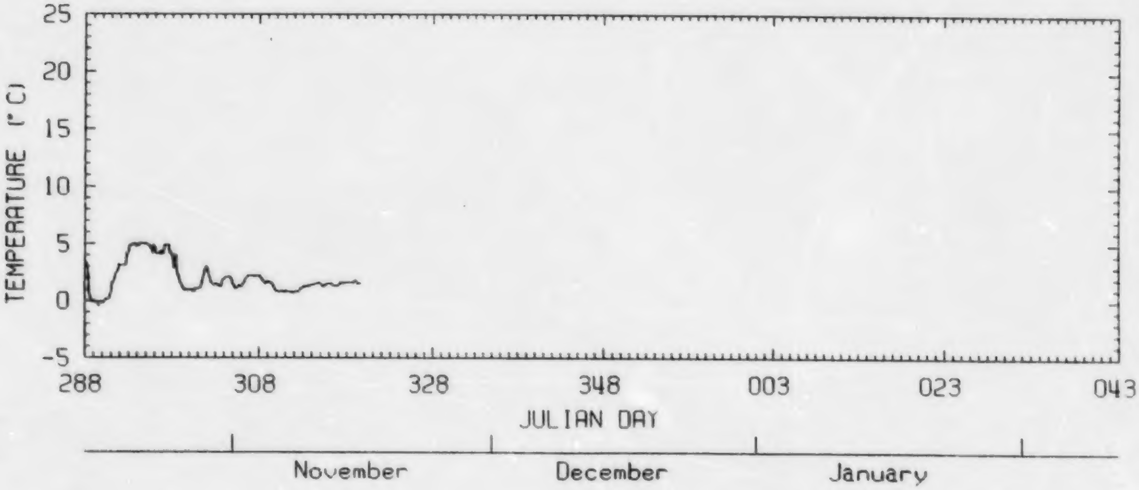
HAMPDEN, WHITE BAY





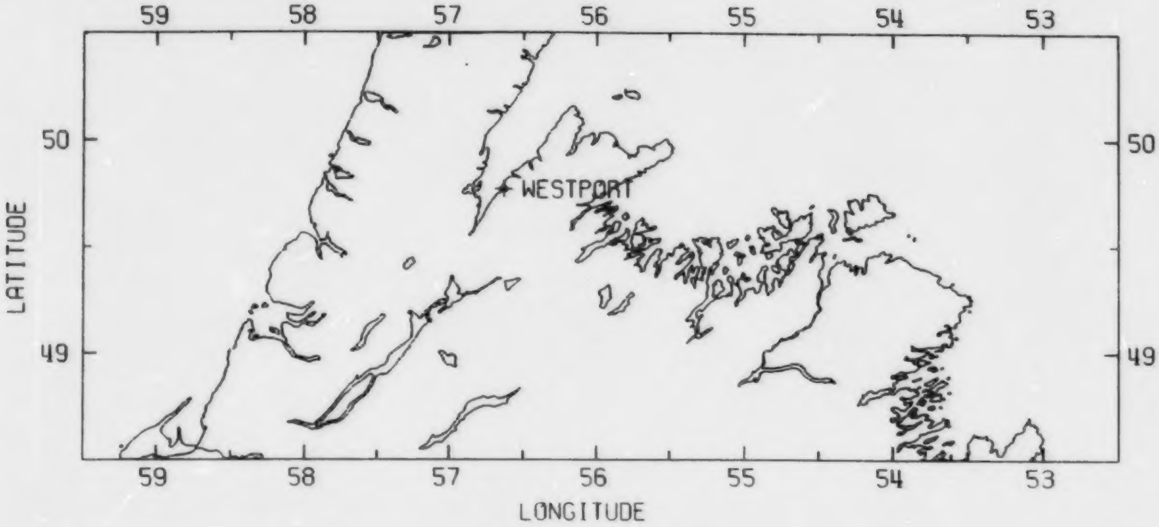
Start:17-JUN-1999 End:15-NOV-1999 Inst. S/N:4354

THERMOGRAPH DATA SUMMARY

STATION NAME:	WESTPORT
STATION NUMBER:	105
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007934
LATITUDE:	49.77° N
LONGITUDE:	56.63° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	15 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	13-JUN-1998 23:00 GMT
RECOVERY DATE/TIME:	7-OCT-1998 08:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	**MIN (°C)**	**DAY**	**MAX (°C)**	**DAY**	**MEAN (°C)**	**STD. DEV.**	**DEGREE DAY 0**	**DEGREE DAY 4**	**NO. SAMP.**
JUN-1998	-0.25	165	10.90	181	3.05	3.25	52.3	15.5	409
JUL-1998	1.15	184	14.45	212	8.24	3.87	255.3	139.7	744
AUG-1998	5.35	213	15.15	222	12.59	2.03	390.3	266.3	744
SEP-1998	0.35	273	13.55	247	10.56	3.41	316.8	201.2	720
OCT-1998	-0.10	277	4.00	275	0.89	0.82	5.9	0.0	153
Total Period	-0.25	165	15.15	222	8.84	4.78	1020.6	622.7	2770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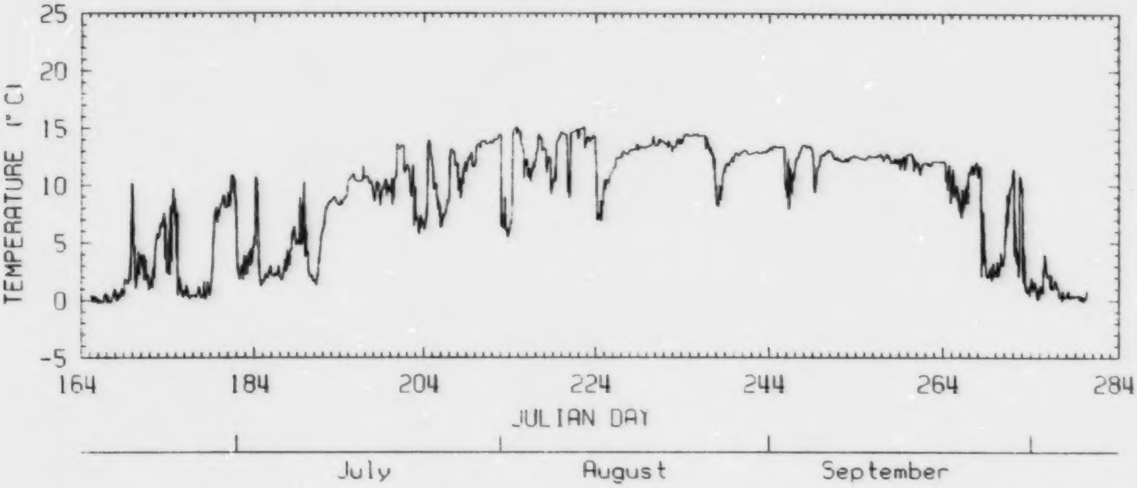


Start: 13-JUN-1998   End: 7-OCT-1998   Inst. S/N:7934

THERMOGRAPH DATA SUMMARY

STATION NAME: WESTPORT

STATION NUMBER: 105

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 006741

LATITUDE: 49.77° N

LONGITUDE: 56.63° W

INSTRUMENT DEPTH: 13 m

WATER DEPTH: 8 m

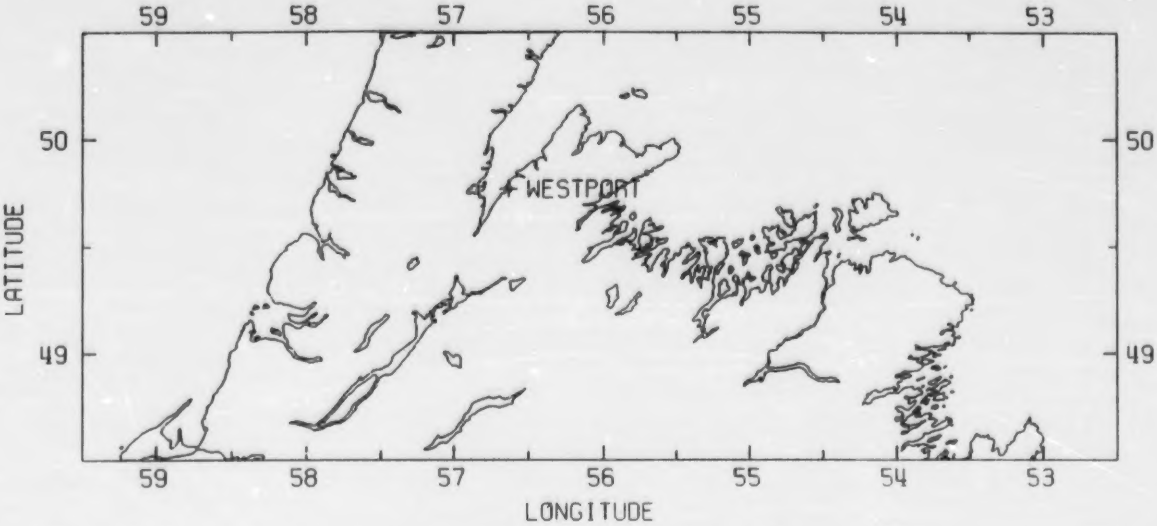
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 9-JUN-1999 22:00 GMT

RECOVERY DATE/TIME: 5-OCT-1999 04:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	0.75	164	12.30	178	6.10	2.47	130.7	47.8	506
JUL-1999	3.55	199	12.95	201	9.40	2.53	291.5	167.5	744
AUG-1999	3.00	225	16.10	220	10.54	3.00	326.7	202.7	744
SEP-1999	2.25	269	13.95	254	11.58	1.71	347.4	227.4	720
OCT-1999	9.45	278	11.70	277	10.67	0.40	52.6	32.6	101
Total Period	0.75	164	16.10	220	9.71	3.06	1149.0	678.0	2815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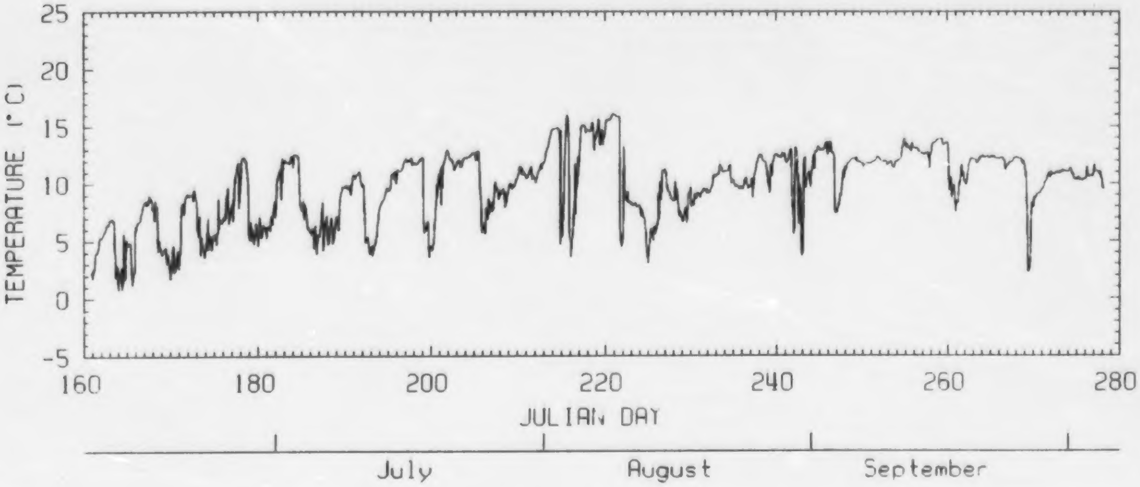


Start: 9-JUN-1999 End: 5-OCT-1999 Inst. S/N:6741

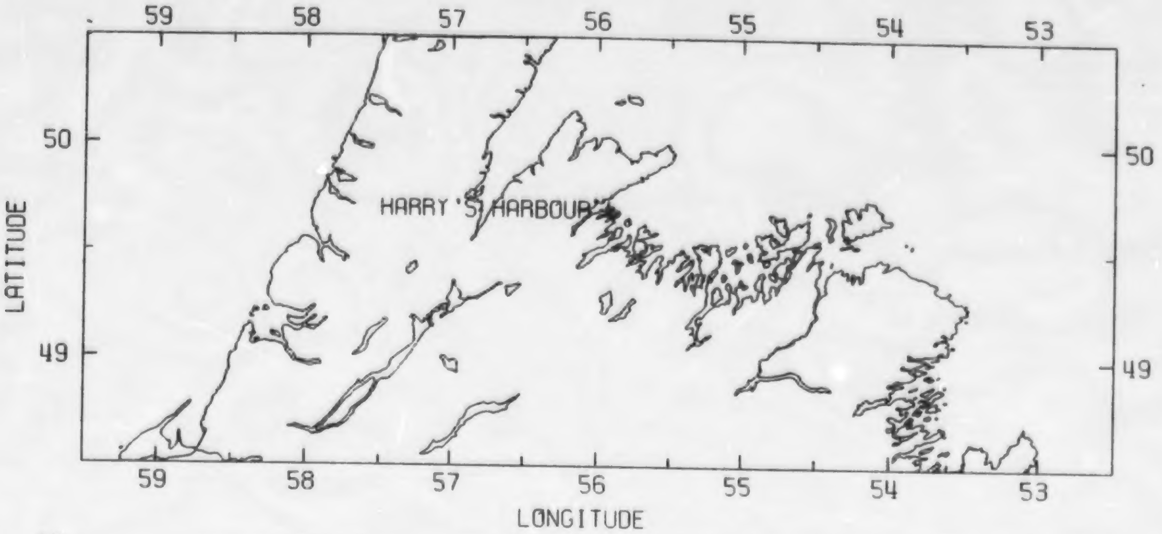
Appendix 5. Time Series Plots and Monthly Statistics from Unit Area 3Kh.

THERMOGRAPH DATA SUMMARY

STATION NAME:	HARRY'S HARBOUR
STATION NUMBER:	126
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006641
LATITUDE:	49.70° N
LONGITUDE:	55.93° W
INSTRUMENT DEPTH:	35 m
WATER DEPTH:	20 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	8-JUL-1998 09:00 GMT
RECOVERY DATE/TIME:	21-OCT-1998 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	0.60	202	11.90	210	5.70	3.49	135.4	57.7	567
AUG-1998	4.55	216	13.85	220	10.94	1.88	339.3	215.3	744
SEP-1998	0.15	273	13.35	248	10.31	2.47	309.4	191.9	720
OCT-1998	-0.50	278	9.15	275	7.00	2.34	147.3	69.2	496
Total Period	-0.50	278	13.85	220	8.81	3.37	931.3	534.2	2527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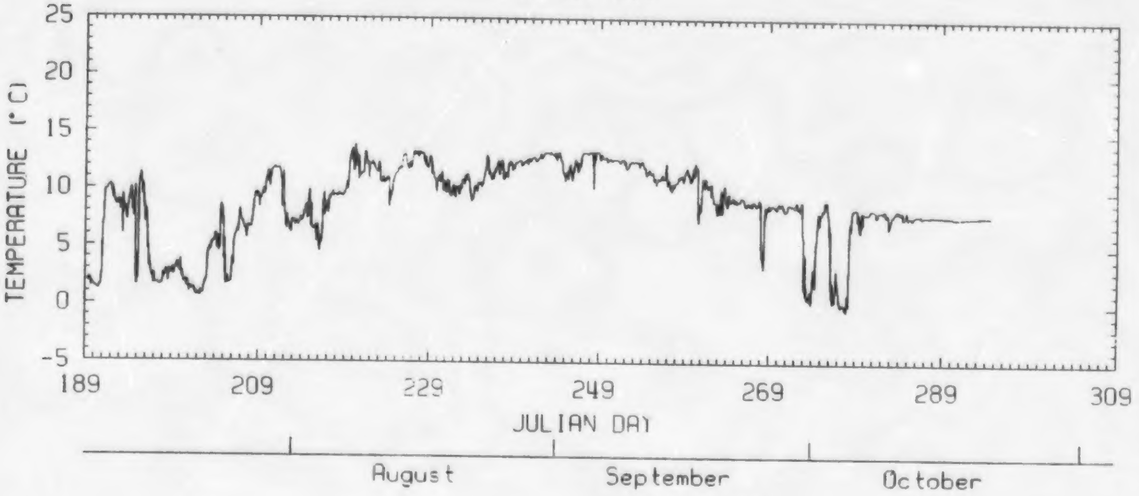
HARRY'S HARBOUR



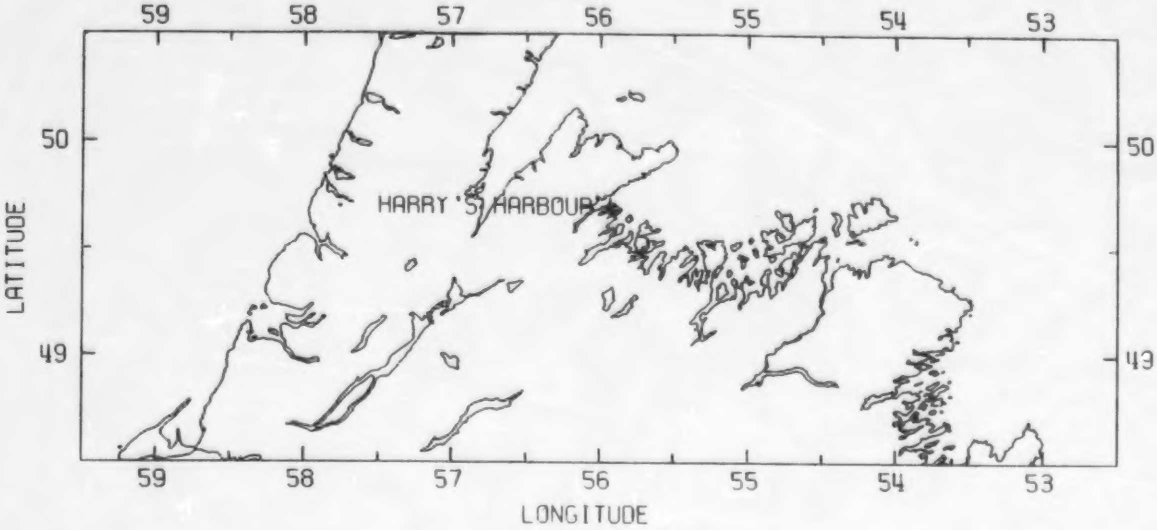
Start: 8-JUL-1998 End: 21-OCT-1998 Inst. S/N:6641

THERMOGRAPH DATA SUMMARY

STATION NAME:	HARRY'S HARBOUR
STATION NUMBER:	126
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008967
LATITUDE:	49.70° N
LONGITUDE:	55.93° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	30 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	27-MAY-1999 12:00 GMT
RECOVERY DATE/TIME:	5-SEP-1999 23:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	-0.95	151	3.25	150	0.89	1.23	5.2	0.0	108
JUN-1999	-1.05	152	9.40	181	4.50	1.87	135.1	28.4	720
JUL-1999	2.75	186	14.05	212	7.27	2.37	225.5	102.4	744
AUG-1999	1.30	221	16.55	220	8.47	3.01	262.5	141.8	744
SEP-1999	8.45	245	13.20	248	11.29	1.24	56.4	36.4	120
Total Period	-1.05	152	16.55	220	6.73	3.27	684.7	309.1	2436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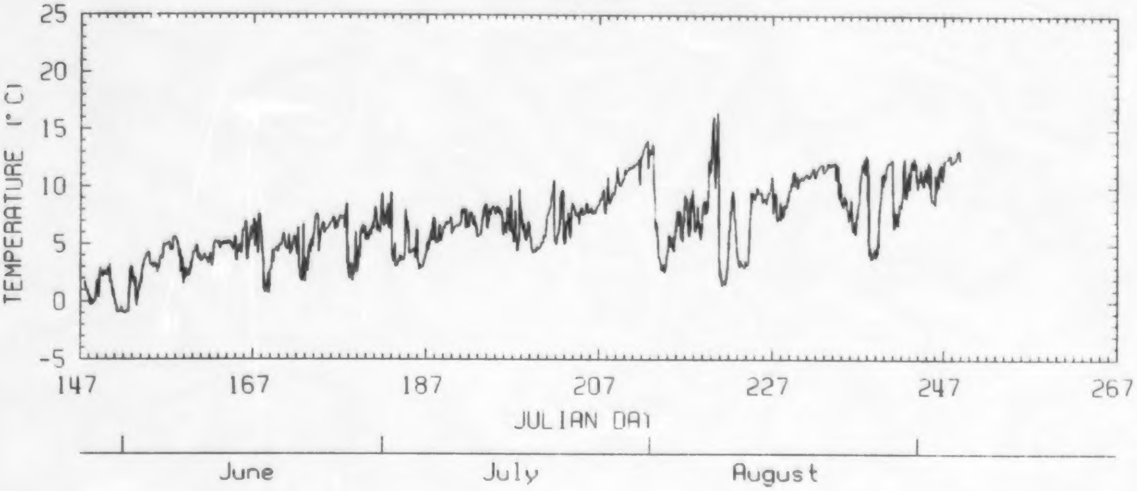
HARRY'S HARBOUR



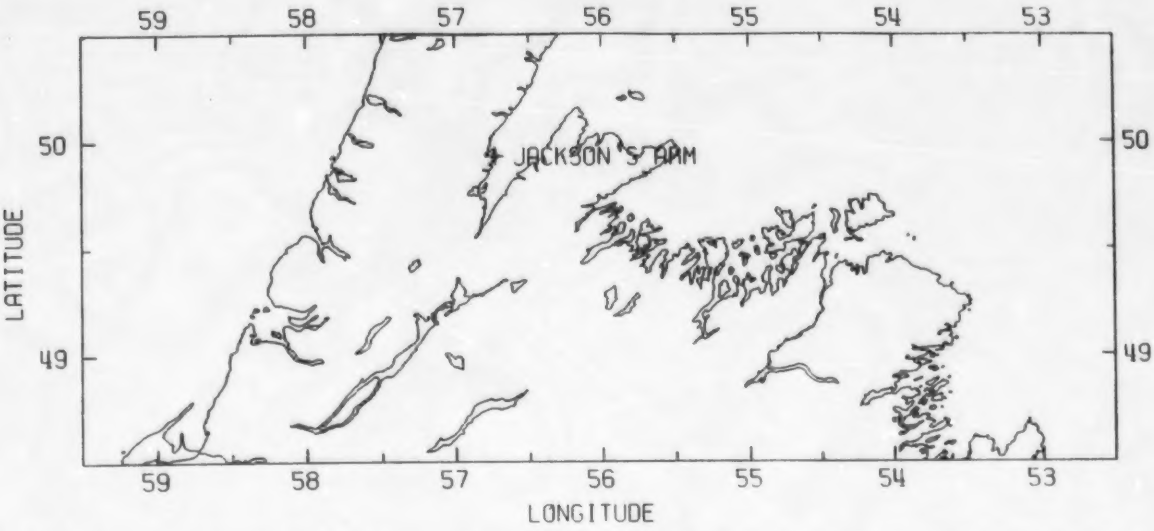
Start: 27-MAY-1999 End: 5-SEP-1999 Inst. S/N:8967

THERMOGRAPH DATA SUMMARY

STATION NAME:	JACKSON'S ARM
STATION NUMBER:	258
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004355
LATITUDE:	49.93° N
LONGITUDE:	56.73° W
INSTRUMENT DEPTH:	20 m
WATER DEPTH:	24 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	17-JUL-1999 11:00 GMT
RECOVERY DATE/TIME:	6-NOV-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	-0.30	198	11.90	212	5.74	2.60	83.6	31.0	349
AUG-1999	-1.00	223	12.50	234	5.84	3.41	182.2	76.1	744
SEP-1999	1.00	268	12.20	252	9.42	2.47	282.5	163.1	720
OCT-1999	-1.00	289	10.50	279	5.21	2.79	161.5	57.2	744
NOV-1999	1.60	310	3.90	305	2.63	0.66	15.5	0.0	133
Total Period	-1.00	223	12.50	234	6.45	3.40	725.3	327.5	2690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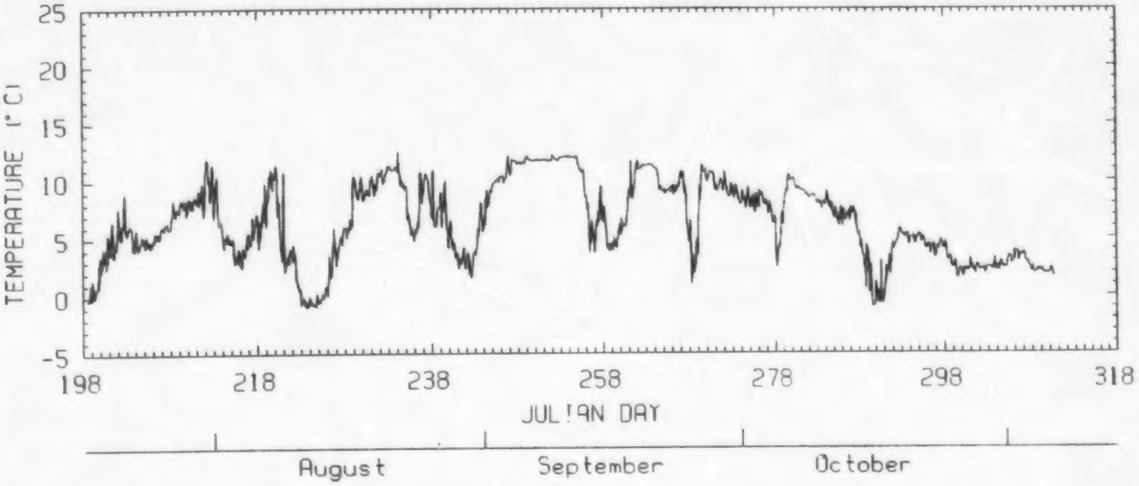
LATITUDE
JACKSON'S ARM
LONGITUDE



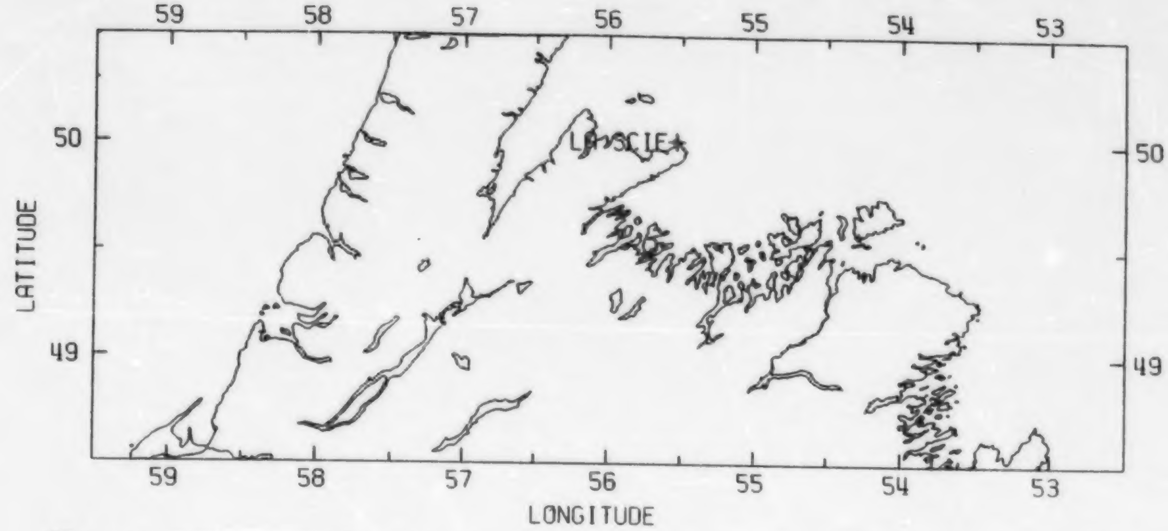
Start: 17-JUL-1999 End: 6-NOV-1999 Inst. S/N:4355

THERMOGRAPH DATA SUMMARY

STATION NAME:	LA SCIE
STATION NUMBER:	204
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006443
LATITUDE:	50.01° N
LONGITUDE:	55.54° W
INSTRUMENT DEPTH:	29 m
WATER DEPTH:	33 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	7-JUL-1998 20:00 GMT
RECOVERY DATE/TIME:	15-OCT-1998 09:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	-1.20	193	9.30	205	2.13	1.70	52.3	2.9	580
AUG-1998	-0.30	239	13.20	222	7.31	2.76	226.7	106.9	744
SEP-1998	-0.90	272	10.30	260	5.61	3.55	169.1	72.3	720
OCT-1998	-0.70	281	9.20	278	4.35	3.03	66.0	18.9	346
Total Period	-1.20	193	13.20	222	5.11	3.47	514.0	200.9	2390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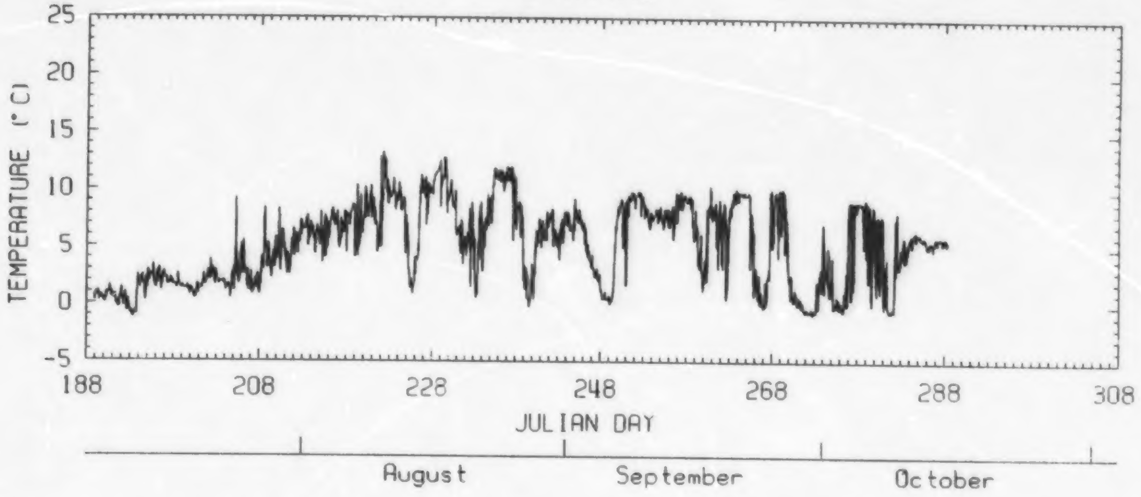
LONGITUDE



Start: 7-JUL-1998 End: 15-OCT-1998 Inst. S/N:6443

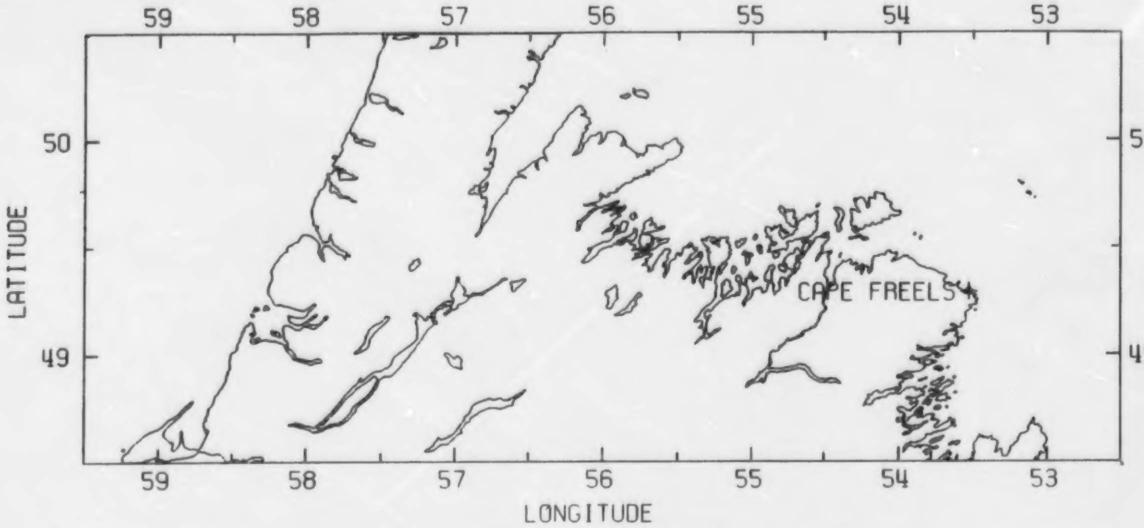
Appendix 6. Time Series Plots and Monthly Statistics from Unit Area 3Ki

THERMOGRAPH DATA SUMMARY

STATION NAME:	CAPE FREELS
STATION NUMBER:	114
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008962
LATITUDE:	49.29° N
LONGITUDE:	53.53° W
INSTRUMENT DEPTH:	15 m
WATER DEPTH:	31 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	6-JUN-1998 14:00 GMT
RECOVERY DATE/TIME:	3-NOV-1998 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	-0.50	175	10.00	179	4.12	2.25	101.0	19.7	586
JUL-1998	0.00	183	14.75	207	4.28	2.27	132.6	25.7	744
AUG-1998	3.70	213	17.10	224	11.21	3.28	347.5	223.5	744
SEP-1998	-0.85	272	12.95	245	9.24	2.37	277.2	160.5	720
OCT-1998	-0.45	275	9.55	278	6.86	1.88	212.7	91.1	744
NOV-1998	3.00	306	4.95	305	3.76	0.60	11.1	0.4	62
Total Period	-0.85	272	17.10	224	7.20	3.70	1082.1	520.8	3600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LATITUDE
CAPE FREELS
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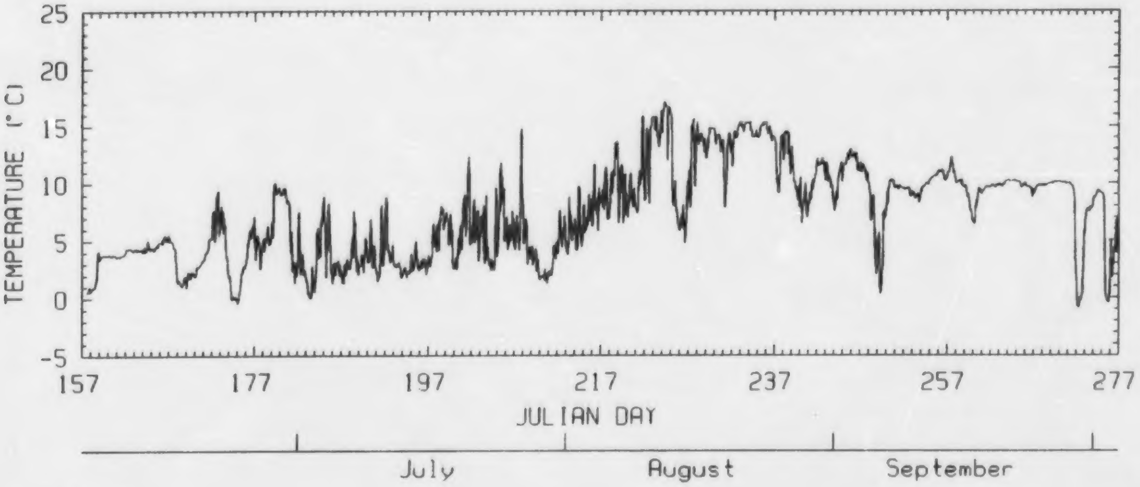
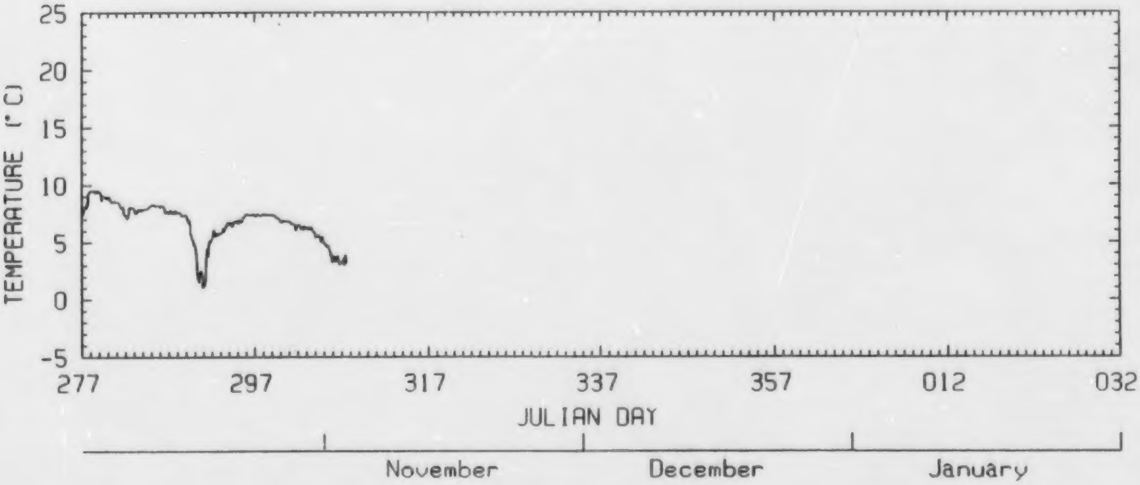




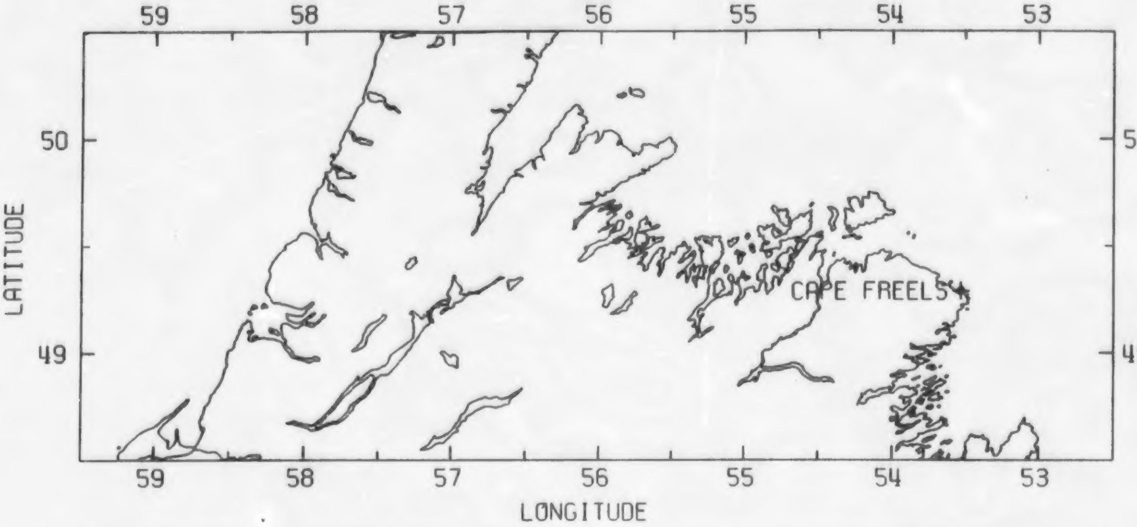
Start: 6-JUN-1998 End: 3-NOV-1998 Inst. S/N:8962

THERMOGRAPH DATA SUMMARY

STATION NAME:	CAPE FREELS
STATION NUMBER:	114
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007880
LATITUDE:	49.29° N
LONGITUDE:	53.53° W
INSTRUMENT DEPTH:	5 m
WATER DEPTH:	31 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	6-JUN-1998 14:00 GMT
RECOVERY DATE/TIME:	3-NOV-1998 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	1.40	158	10.10	178	5.85	2.51	144.2	49.3	586
JUL-1998	0.55	183	14.85	207	9.34	2.98	289.6	167.1	744
AUG-1998	10.05	226	17.10	224	14.70	1.16	455.7	331.7	744
SEP-1998	2.55	272	13.35	245	10.26	1.84	307.9	187.9	720
OCT-1998	4.00	290	9.65	274	7.40	1.17	229.5	105.5	744
NOV-1998	4.30	307	5.70	305	5.00	0.41	14.8	2.8	62
Total Period	0.55	183	17.10	224	9.59	3.64	1441.8	844.3	3600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LATITUDE
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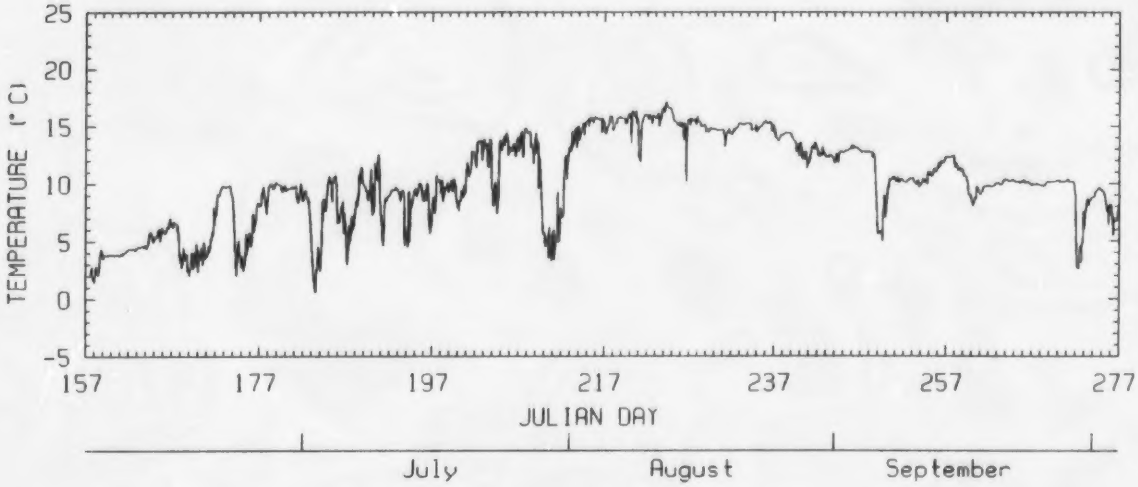
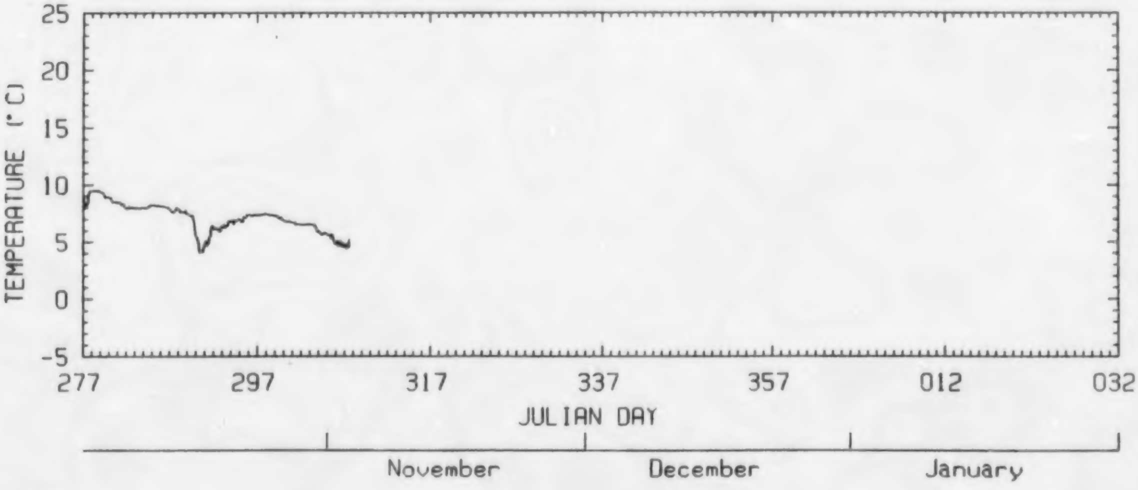
CAPE FREELS





Start: 6-JUN-1998 End: 3-NOV-1998 Inst. S/N:7880

THERMOGRAPH DATA SUMMARY

STATION NAME: CAPE FREELS

STATION NUMBER: 114

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 007929

LATITUDE: 49.29° N

LONGITUDE: 53.53° W

INSTRUMENT DEPTH: 15 m

WATER DEPTH: 35 m

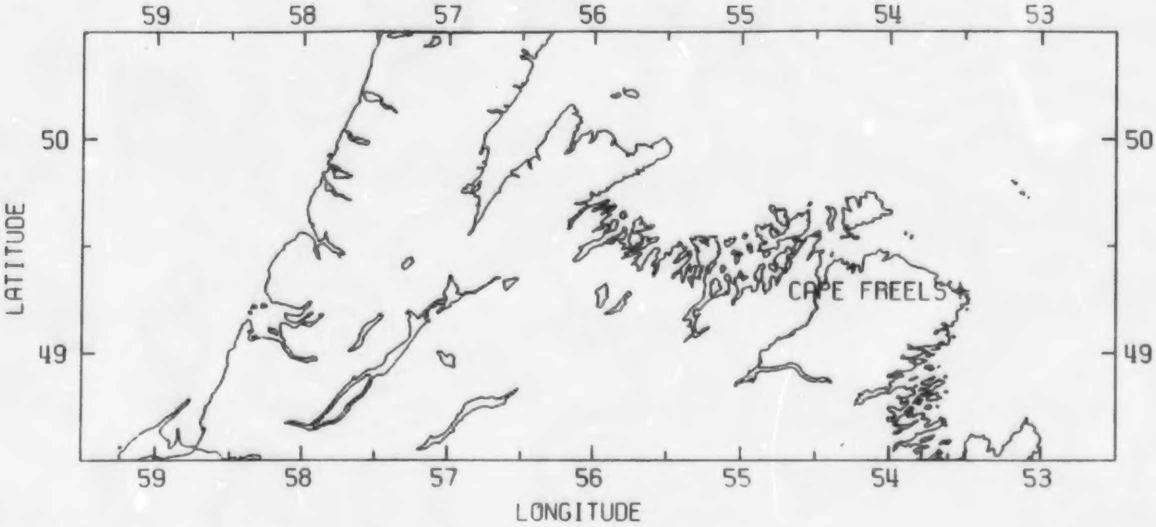
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 13-JUN-1999 13:00 GMT

RECOVERY DATE/TIME: 15-NOV-1999 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	2.00	181	10.20	179	5.58	1.52	100.6	29.3	419
JUL-1999	1.75	182	14.00	206	9.81	2.37	304.0	180.6	744
AUG-1999	3.15	220	14.25	243	10.02	2.46	310.6	186.6	744
SEP-1999	5.05	251	14.65	246	11.22	2.06	336.7	216.7	720
OCT-1999	-0.10	288	11.05	278	7.41	2.27	229.9	106.2	744
NOV-1999	2.85	319	5.10	305	4.33	0.59	64.5	6.9	351
Total Period	-0.10	288	14.65	246	8.65	3.09	1346.3	726.3	3722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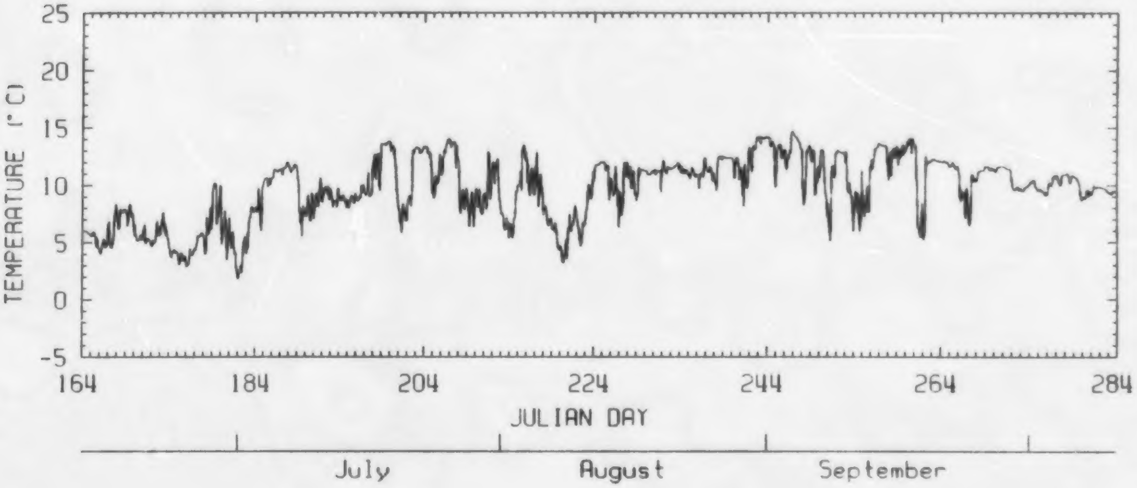
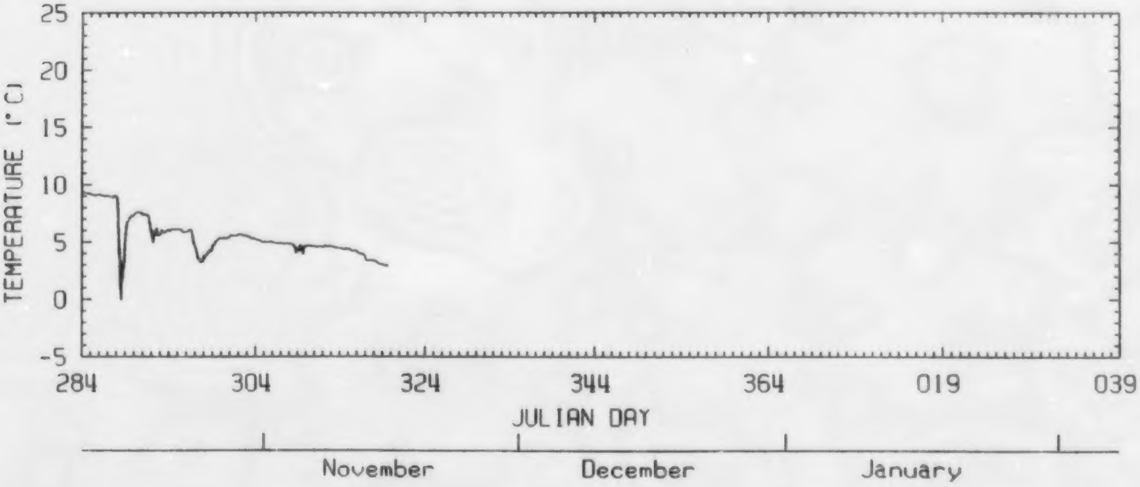
CAPE FREELS
LONGITUDE





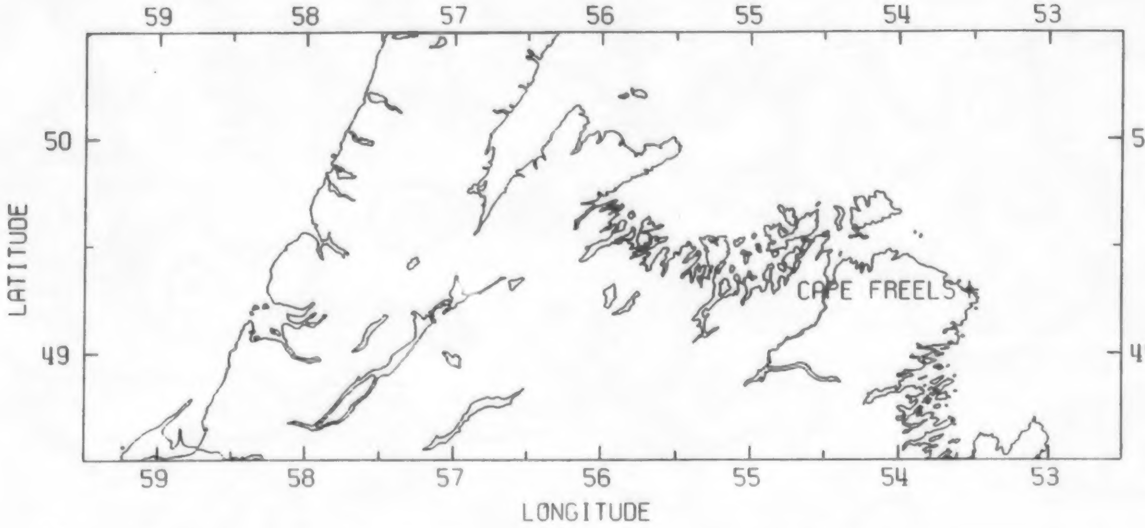
Start:13-JUN-1999 End:15-NOV-1999 Inst. S/N:7929

THERMOGRAPH DATA SUMMARY

STATION NAME:	CAPE FREELS
STATION NUMBER:	114
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005471
LATITUDE:	49.29° N
LONGITUDE:	53.53° W
INSTRUMENT DEPTH:	5 m
WATER DEPTH:	35 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	13-JUN-1999 13:00 GMT
RECOVERY DATE/TIME:	15-NOV-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	4.45	175	10.70	179	7.79	1.74	139.3	67.3	419
JUL-1999	4.10	182	14.50	206	11.96	1.72	370.9	246.9	744
AUG-1999	5.90	220	16.40	217	11.92	1.87	369.7	245.7	744
SEP-1999	9.85	273	14.70	246	12.60	1.08	377.9	257.9	720
OCT-1999	2.50	288	11.15	278	7.63	2.28	236.5	112.5	744
NOV-1999	2.95	318	5.05	305	4.33	0.60	64.4	7.0	350
Total Period	2.50	288	16.40	217	10.02	3.23	1558.6	937.2	3721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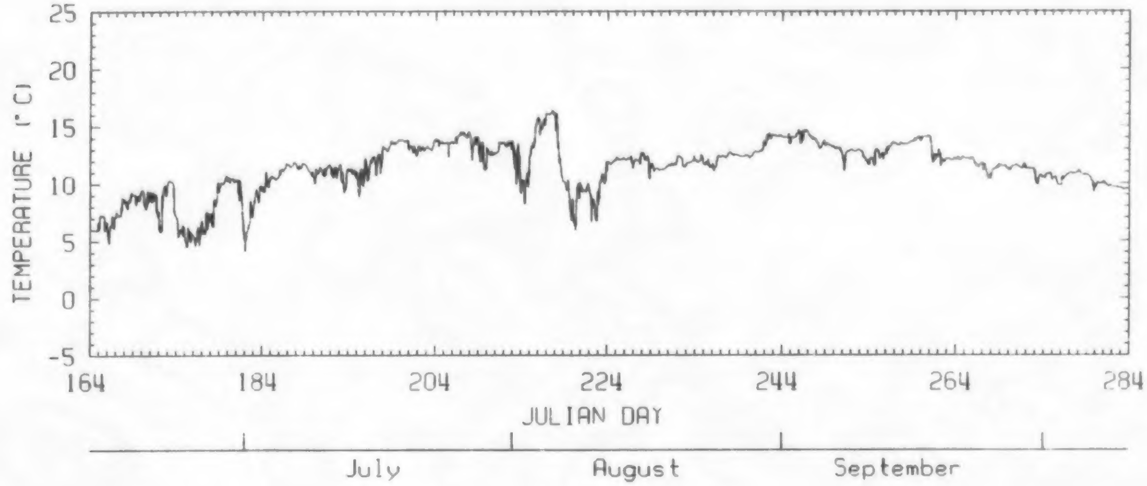
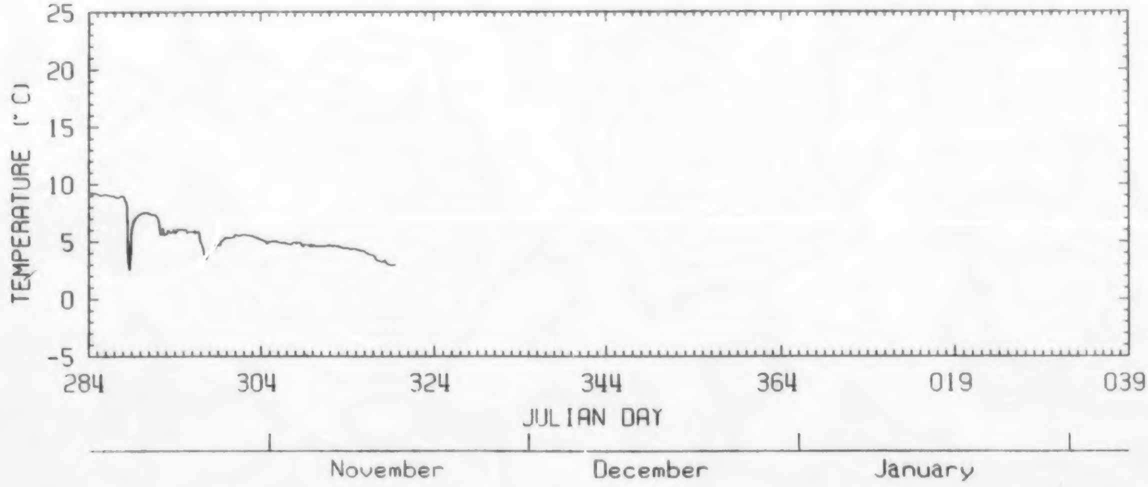
CAPE FREELS





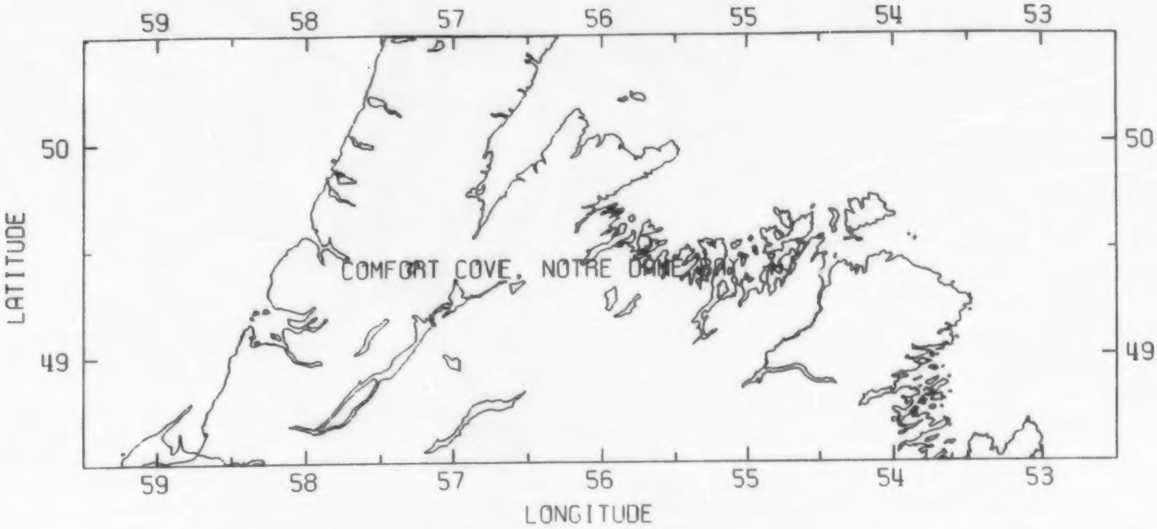
Start: 13-JUN-1999 End: 15-NOV-1999 Inst. S/N: 5471

THERMOGRAPH DATA SUMMARY

STATION NAME: COMFORT COVE, NOTRE DAME BAY
STATION NUMBER: 118
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 005477
LATITUDE: 49.41° N
LONGITUDE: 54.83° W
INSTRUMENT DEPTH: 9 m
WATER DEPTH: 9 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 20-MAY-1998 15:00 GMT
RECOVERY DATE/TIME: 9-SEP-1998 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	0.40	144	8.35	151	3.02	1.82	36.6	4.2	273
JUN-1998	1.00	158	12.75	175	4.04	2.10	121.2	19.7	720
JUL-1998	2.40	184	16.85	204	6.32	2.68	196.0	73.7	744
AUG-1998	5.55	213	18.80	224	13.87	2.64	430.1	306.1	744
SEP-1998	7.85	250	14.20	244	11.30	1.48	101.7	65.7	206
Total Period	0.40	144	18.80	224	7.85	4.85	885.6	469.4	2687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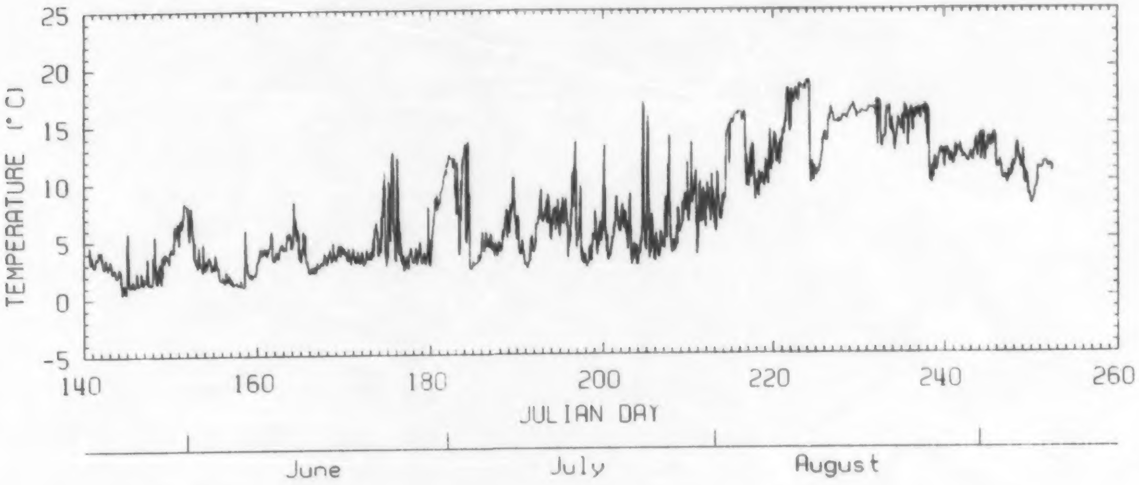
LATITUDE
COMFORT COVE, NOTRE DAME BAY,
LONGITUDE



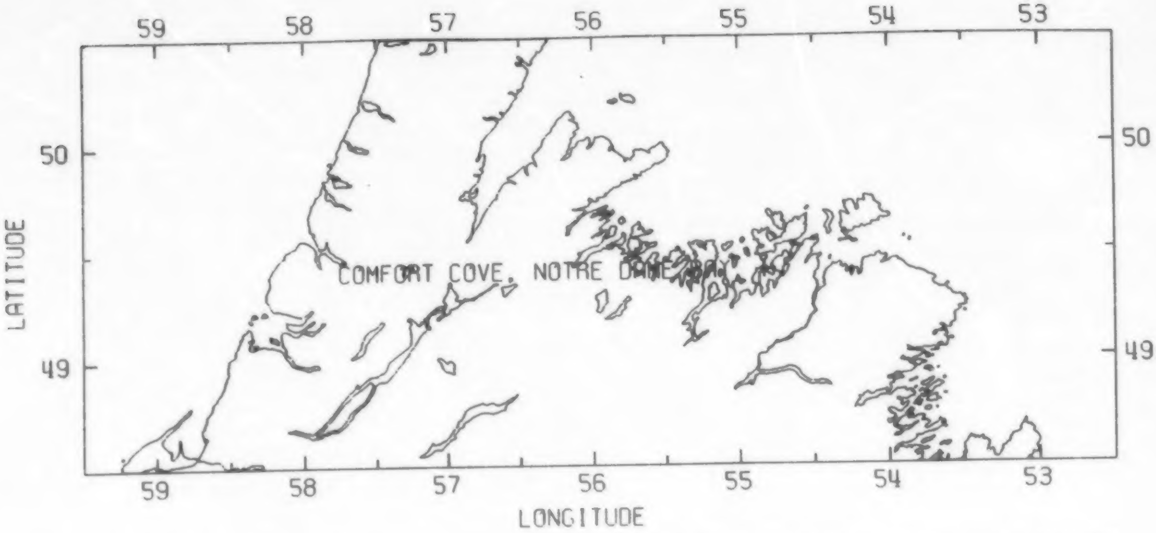
Start: 20-MAY-1998   End: 9-SEP-1998   Inst. S/N:5477

THERMOGRAPH DATA SUMMARY

STATION NAME:	COMFORT COVE, NOTRE DAME BAY
STATION NUMBER:	118
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008955
LATITUDE:	49.41° N
LONGITUDE:	54.83° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	20-MAY-1998 15:00 GMT
RECOVERY DATE/TIME:	9-SEP-1998 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	0.60	144	8.45	151	3.18	1.81	38.5	4.5	273
JUN-1998	1.20	158	13.00	175	4.19	2.10	125.8	21.4	720
JUL-1998	2.60	184	17.05	204	6.45	2.66	200.1	77.3	744
AUG-1998	5.75	213	19.00	224	14.05	2.64	435.5	311.5	744
SEP-1998	8.20	250	14.40	244	11.50	1.45	103.5	67.5	206
Total Period	0.60	144	19.00	224	8.00	4.85	903.3	482.1	2687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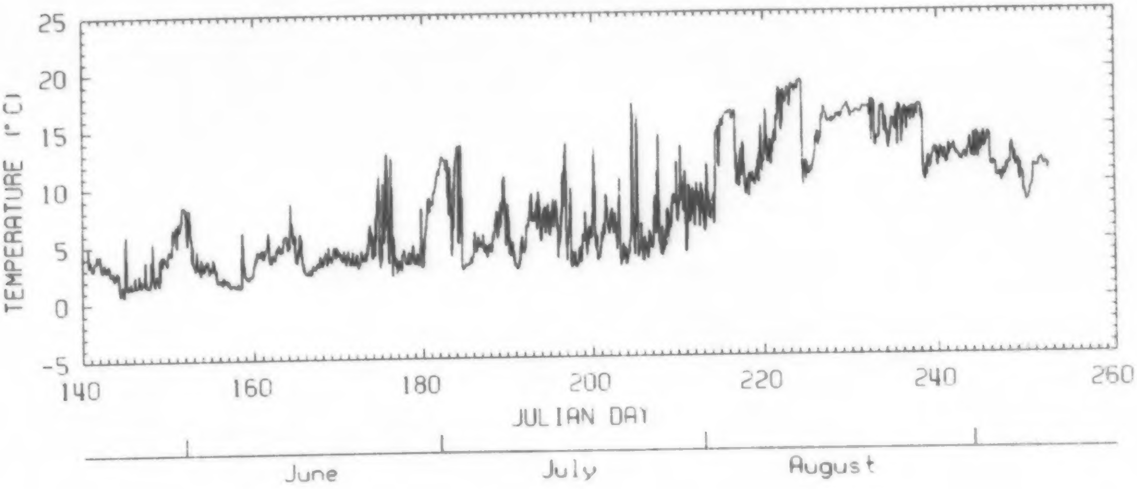
LATITUDE
LONGITUDE
COMFORT COVE, NOTRE DAME



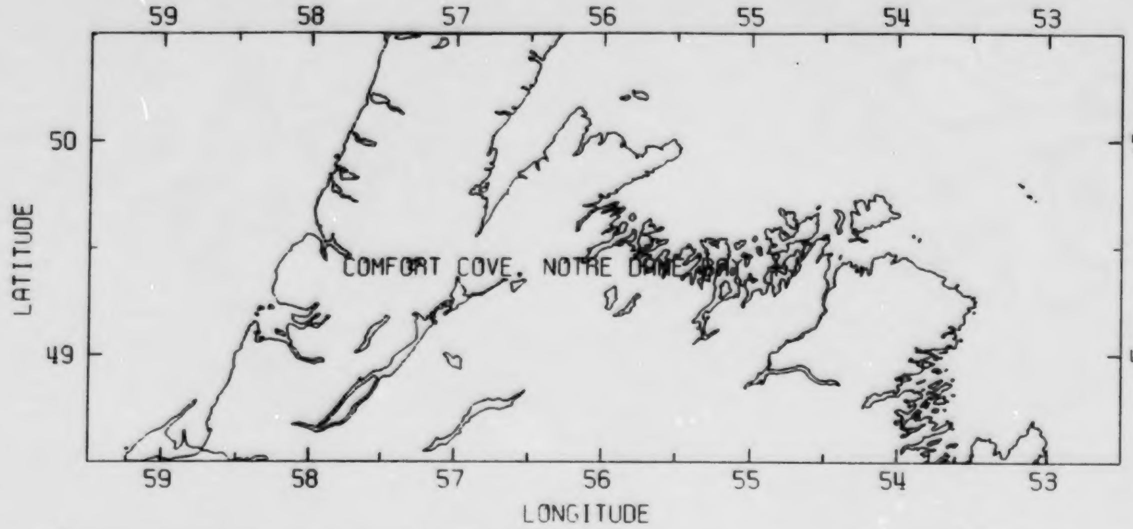
Start: 20-MAY-1998   End: 9-SEP-1998 Inst. S/N:8955

THERMOGRAPH DATA SUMMARY

STATION NAME:	COMFORT COVE, NOTRE DAME BAY
STATION NUMBER:	118
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	003266
LATITUDE:	49.41° N
LONGITUDE:	54.83° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	9-SEP-1998 14:00 GMT
RECOVERY DATE/TIME:	25-NOV-1998 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1998	9.60	271	13.45	256	11.35	0.78	249.9	161.9	514
OCT-1998	5.95	290	11.85	274	8.41	1.37	260.6	136.6	744
NOV-1998	3.55	327	7.05	308	5.29	1.04	131.7	32.6	592
Total Period	3.55	327	13.45	256	8.23	2.60	642.3	331.1	1850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LATITUDE
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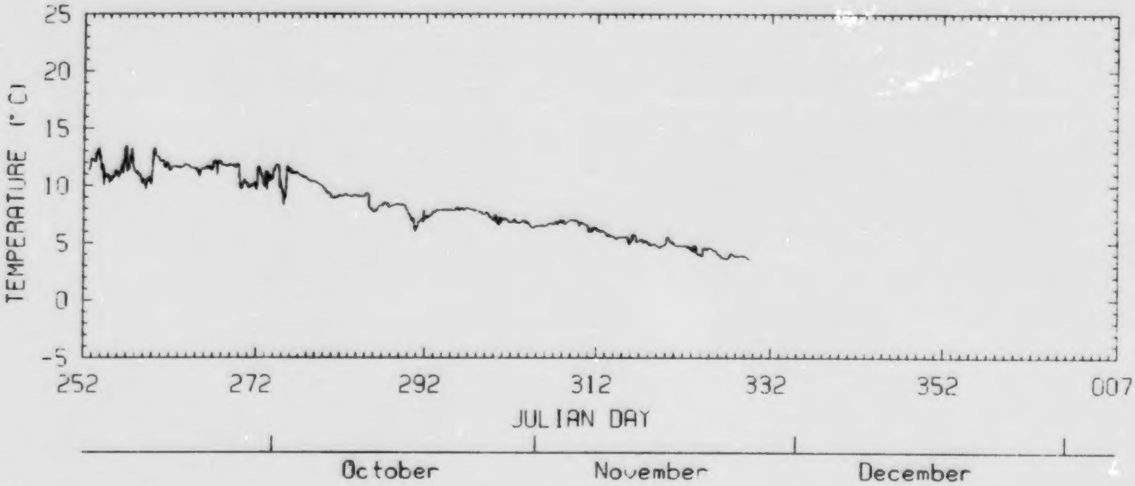
COMFORT COVE, NOTRE DAME BAY



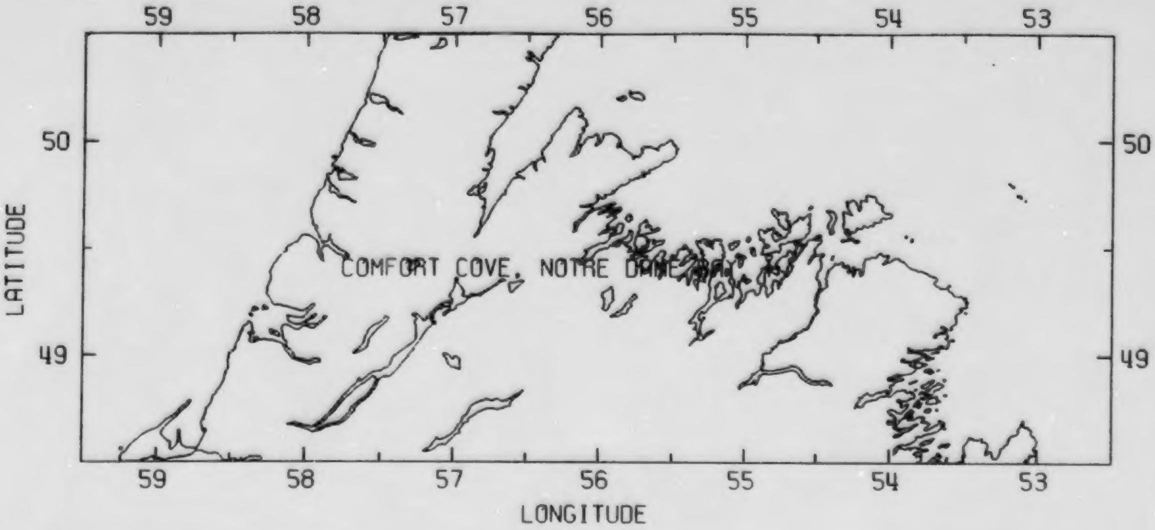
Start: 9-SEP-1998 End: 25-NOV-1998 Inst. S/N:3266

THERMOGRAPH DATA SUMMARY

STATION NAME:	COMFORT COVE, NOTRE DAME BAY
STATION NUMBER:	118
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008961
LATITUDE:	49.41° N
LONGITUDE:	54.83° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	9-SEP-1998 14:00 GMT
RECOVERY DATE/TIME:	25-NOV-1998 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1998	9.40	272	13.35	256	11.29	0.78	248.7	160.7	514
OCT-1998	5.85	290	11.75	274	8.37	1.36	259.4	135.4	744
NOV-1998	3.55	326	7.00	308	5.26	1.03	130.9	31.8	592
Total Period	3.55	326	13.35	256	8.18	2.59	638.9	327.9	1850


COMFORT COVE, NOTRE DAME BAY
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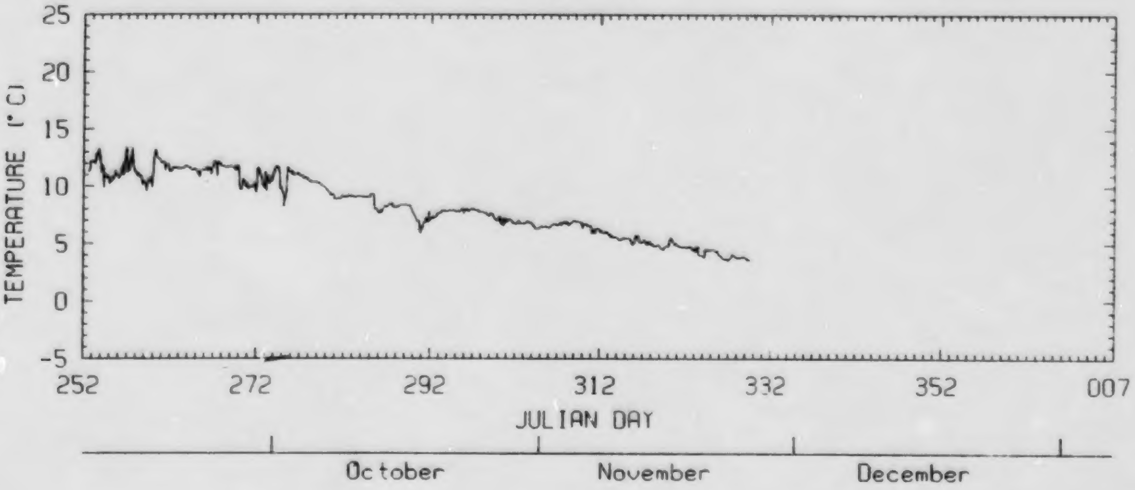


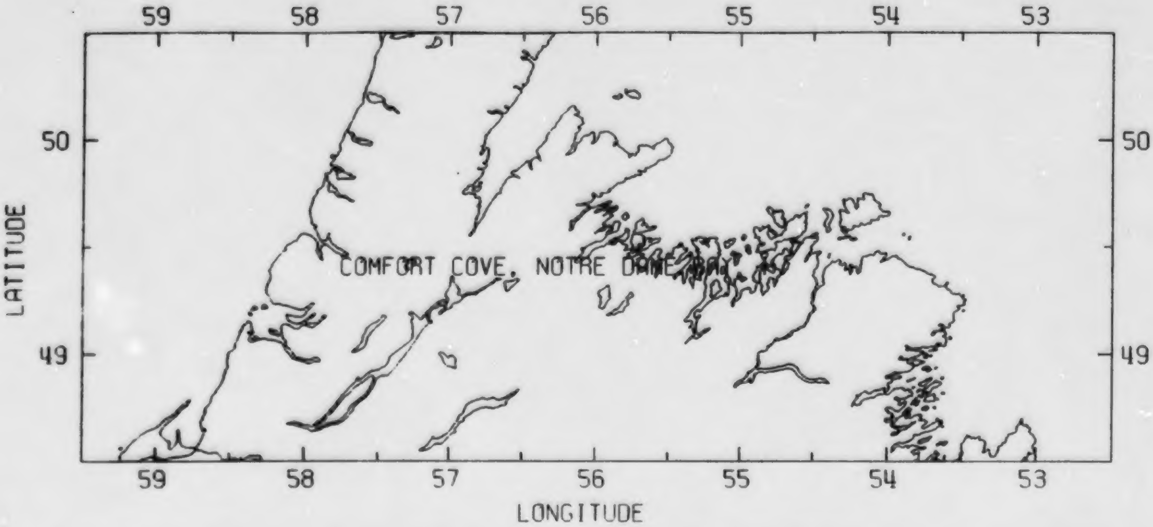
Start: 9-SEP-1998 End: 25-NOV-1998 Inst. S/N:8961

THERMOGRAPH DATA SUMMARY

STATION NAME:	COMFORT COVE, NOTRE DAME BAY
STATION NUMBER:	118
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008966
LATITUDE:	49.41° N
LONGITUDE:	54.83° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	25-NOV-1998 16:00 GMT
RECOVERY DATE/TIME:	25-APR-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1998	3.00	334	3.75	331	3.40	0.16	20.4	0.0	128
DEC-1998	-0.55	362	3.45	335	1.25	1.02	39.7	0.0	744
JAN-1999	-1.80	31	0.05	4	-1.02	0.36	0.0	0.0	744
FEB-1999	-1.90	33	-0.80	52	-1.47	0.24	0.0	0.0	672
MAR-1999	-1.65	61	1.15	90	-0.82	0.60	1.0	0.0	744
APR-1999	-1.00	92	2.80	111	0.25	0.80	8.6	0.0	589
Total Period	-1.90	33	3.75	331	-0.23	1.37	69.8	0.0	3621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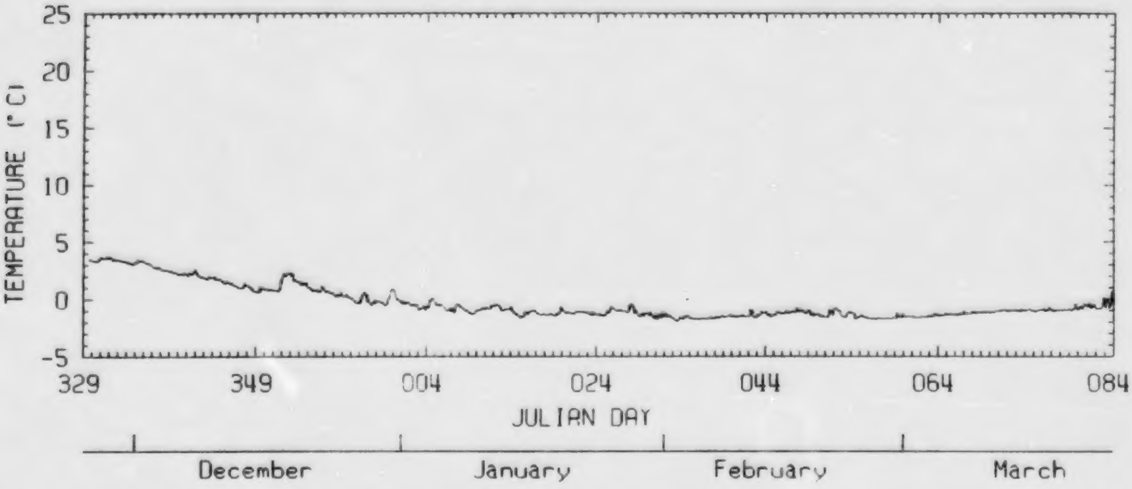
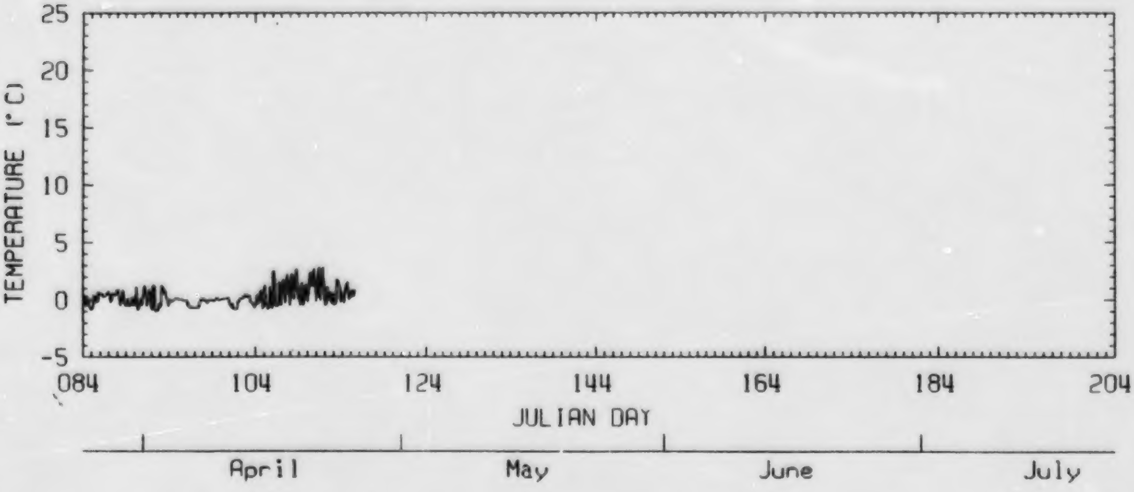
LATITUDE
COMFORT COVE, NOTRE DAME BAY
LONGITUDE





Start:25-NOV-1998 End:25-APR-1999 Inst. S/N:8966

THERMOGRAPH DATA SUMMARY

STATION NAME: COMFORT COVE, NOTRE DAME BAY

STATION NUMBER: 118

INSTRUMENT TYPE: Minilog-T (Vemco)

INSTRUMENT S/N: 004357

LATITUDE: 49.41° N

LONGITUDE: 54.83° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

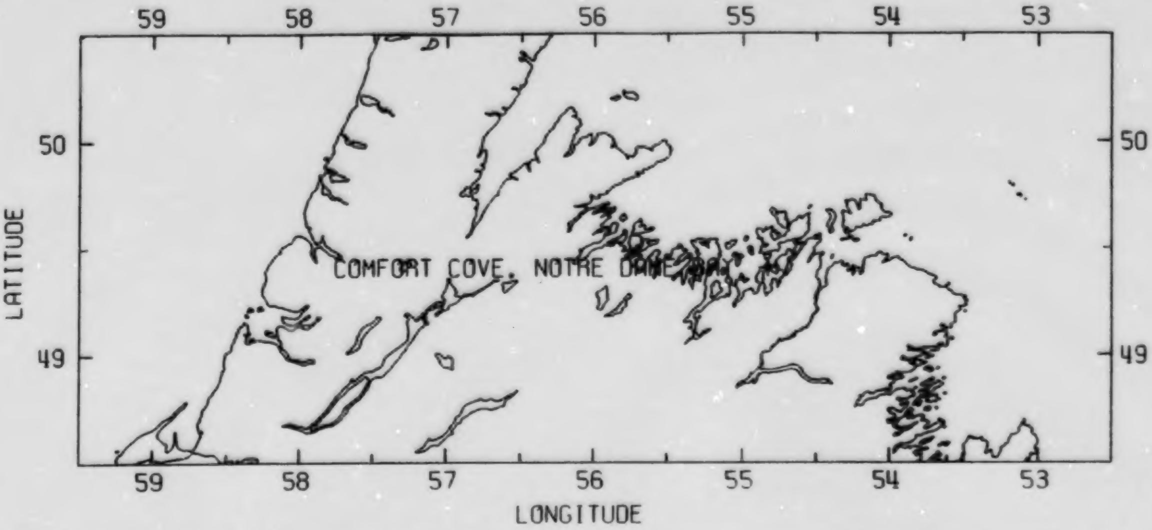
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 25-NOV-1998 16:00 GMT

RECOVERY DATE/TIME: 13-MAY-1999 08:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1998	3.10	334	3.80	331	3.49	0.19	20.9	0.0	128
DEC-1998	-0.70	364	3.50	335	1.33	0.99	41.7	0.0	744
JAN-1999	-1.70	30	0.30	4	-0.92	0.34	0.0	0.0	744
FEB-1999	-1.80	33	-0.70	47	-1.36	0.24	0.0	0.0	672
MAR-1999	-1.60	61	1.20	90	-0.71	0.60	1.5	0.0	744
APR-1999	-1.00	118	3.60	116	0.35	0.91	12.8	0.0	720
MAY-1999	-0.30	121	5.50	132	0.70	0.75	9.1	0.0	297
Total Period	-1.80	33	5.50	132	-0.06	1.34	86.1	0.0	4049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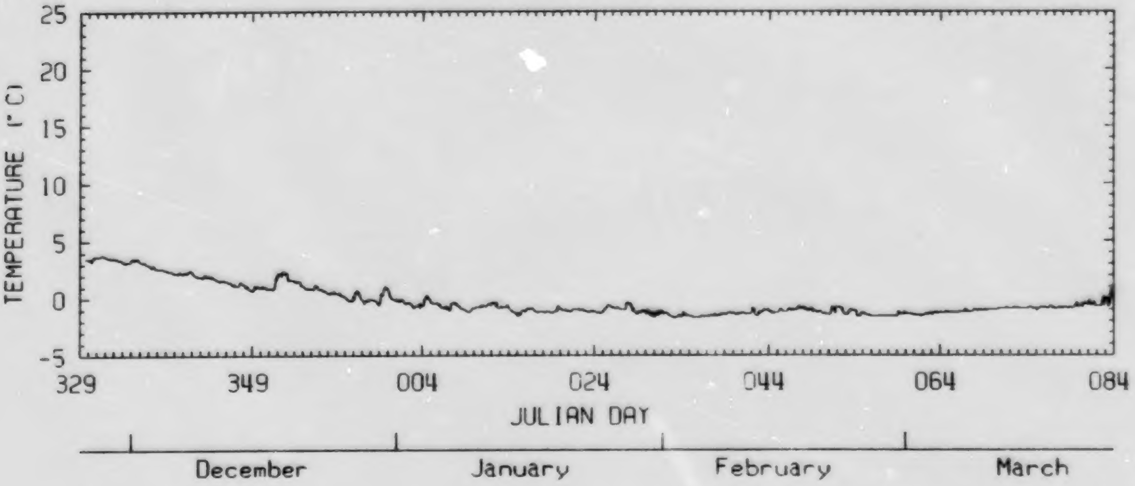
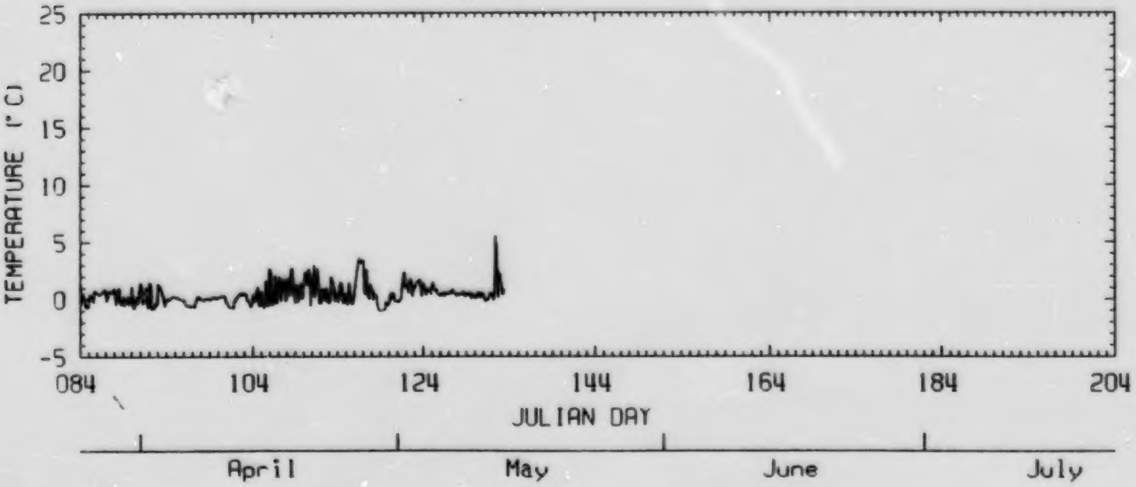
LONGITUDE
COMFORT COVE, NOTRE DAME BAY





Start:25-NOV-1998 End:13-MAY-1999 Inst. S/N:4357

THERMOGRAPH DATA SUMMARY

STATION NAME: COMFORT COVE, NOTRE DAME BAY

STATION NUMBER: 118

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 003287

LATITUDE: 49.41° N

LONGITUDE: 54.83° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

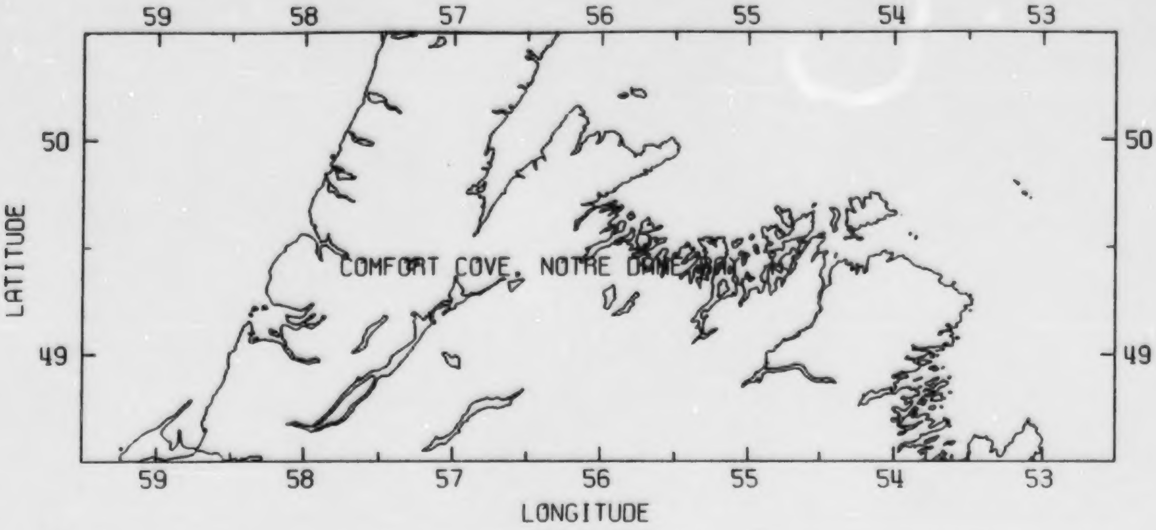
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 13-MAY-1999 14:00 GMT

RECOVERY DATE/TIME: 18-AUG-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	-0.40	133	9.85	151	3.49	2.21	64.6	8.4	442
JUN-1999	1.05	152	15.65	178	7.48	2.25	224.4	104.4	720
JUL-1999	6.00	206	16.95	201	12.18	2.68	377.7	253.7	744
AUG-1999	6.25	222	18.30	214	12.40	2.55	222.5	150.5	422
Total Period	-0.40	133	18.30	214	9.12	4.22	889.2	517.0	2328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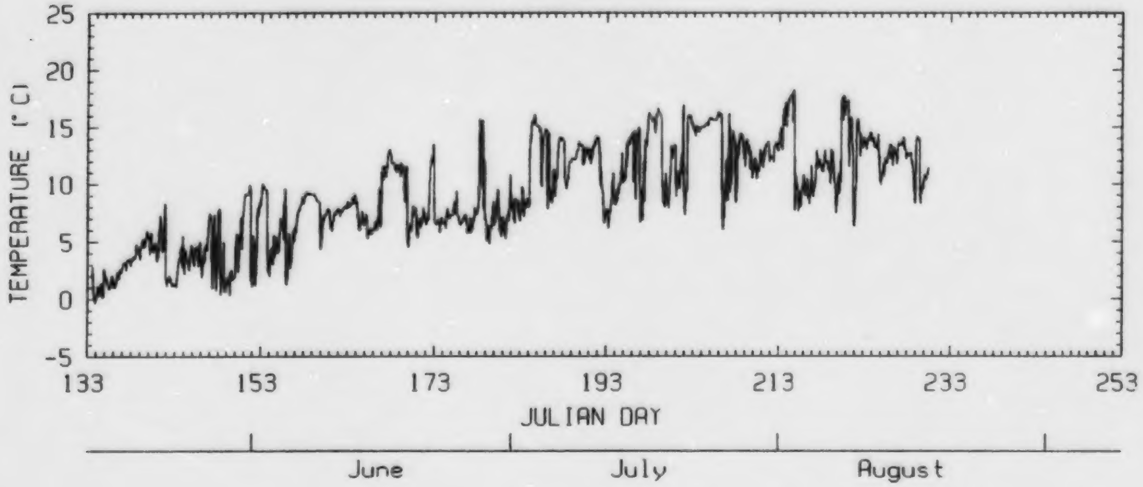
LATITUDE
COMFORT COVE, NOTRE DAME BAY
LONGITUDE



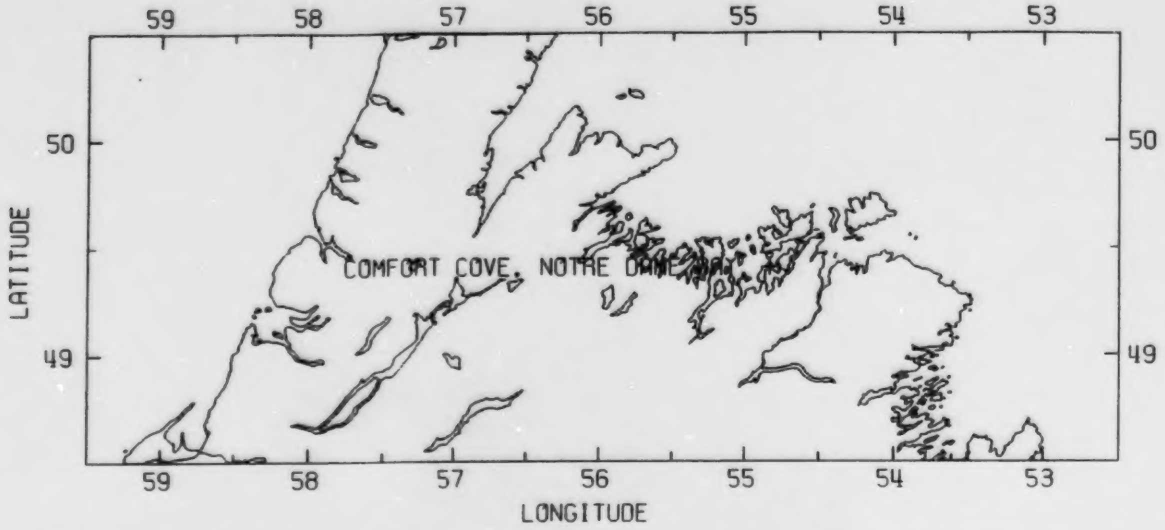
Start: 13-MAY-1999 End: 18-AUG-1999 Inst. S/N:3287

THERMOGRAPH DATA SUMMARY

STATION NAME: COMFORT COVE, NOTRE DAME BAY
STATION NUMBER: 118
INSTRUMENT TYPE: Minilog-T (Vemco)
INSTRUMENT S/N: 004346
LATITUDE: 49.41° N
LONGITUDE: 54.83° W
INSTRUMENT DEPTH: 9 m
WATER DEPTH: 9 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 13-MAY-1999 13:00 GMT
RECOVERY DATE/TIME: 18-AUG-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	-0.20	133	9.80	151	3.35	2.13	62.3	7.3	443
JUN-1999	1.10	152	15.60	178	7.33	2.22	219.9	100.3	720
JUL-1999	5.80	206	16.90	201	11.87	2.78	368.1	244.1	744
AUG-1999	6.00	222	18.30	214	12.10	2.47	217.3	145.3	422
Total Period	-0.20	133	18.30	214	8.89	4.15	867.5	497.0	2329


COMFORT COVE, NOTRE DAME BAY
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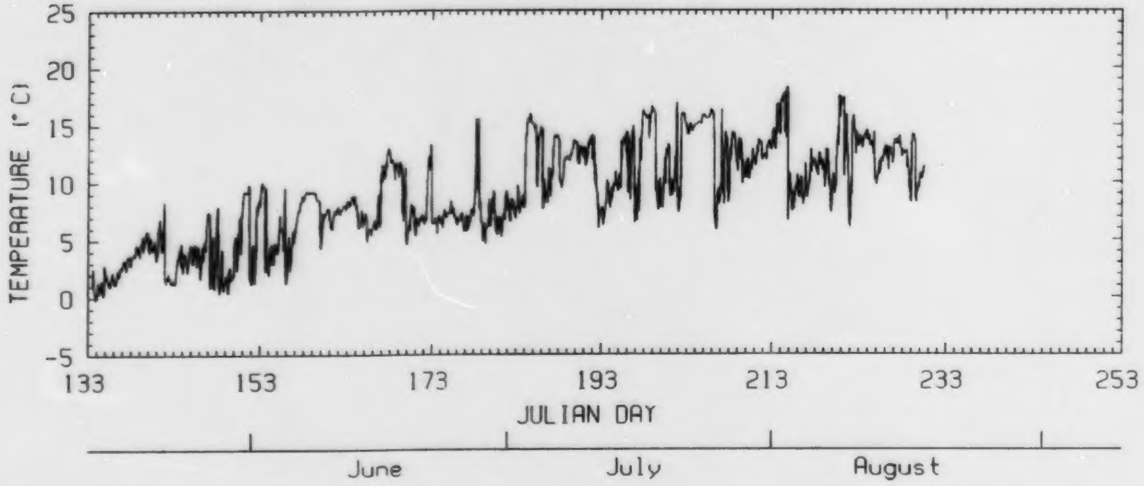
LATITUDE
LONGITUDE



Start: 13-MAY-1999 End: 18-AUG-1999 Inst. S/N:4346

THERMOGRAPH DATA SUMMARY

STATION NAME: COMFORT COVE, NOTRE DAME BAY

STATION NUMBER: 118

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 008971

LATITUDE: 49.41° N

LONGITUDE: 54.83° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

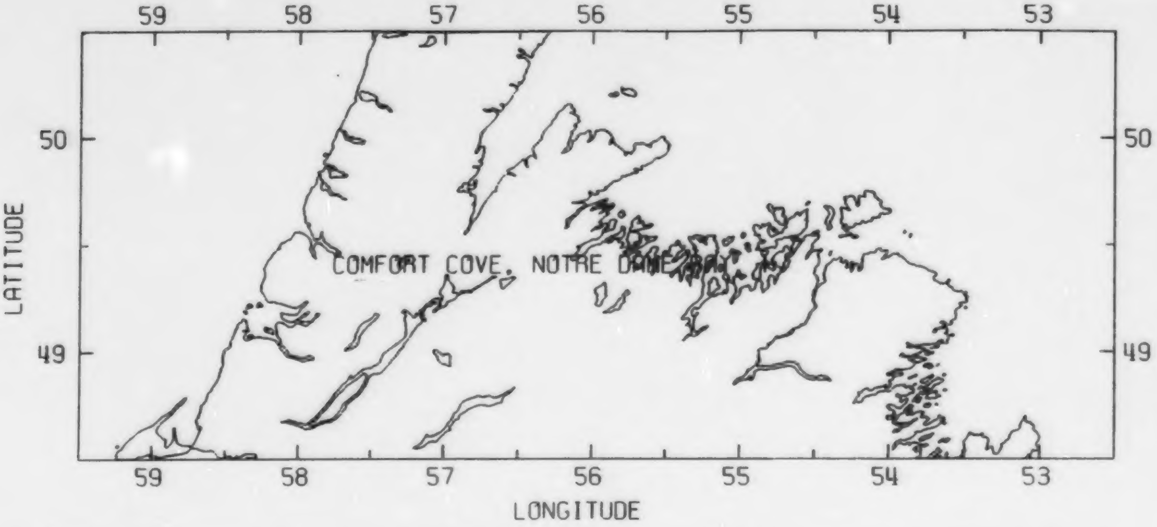
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 18-AUG-1999 14:00 GMT

RECOVERY DATE/TIME: 11-NOV-1999 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	7.75	242	15.55	242	12.84	1.65	178.9	122.9	322
SEP-1999	8.45	247	16.50	246	12.99	1.60	389.8	269.8	720
OCT-1999	5.80	304	12.50	275	9.11	2.01	282.6	158.6	744
NOV-1999	5.00	315	6.15	309	5.67	0.26	62.2	18.2	255
Total Period	5.00	315	16.50	246	10.64	3.08	913.5	569.5	2041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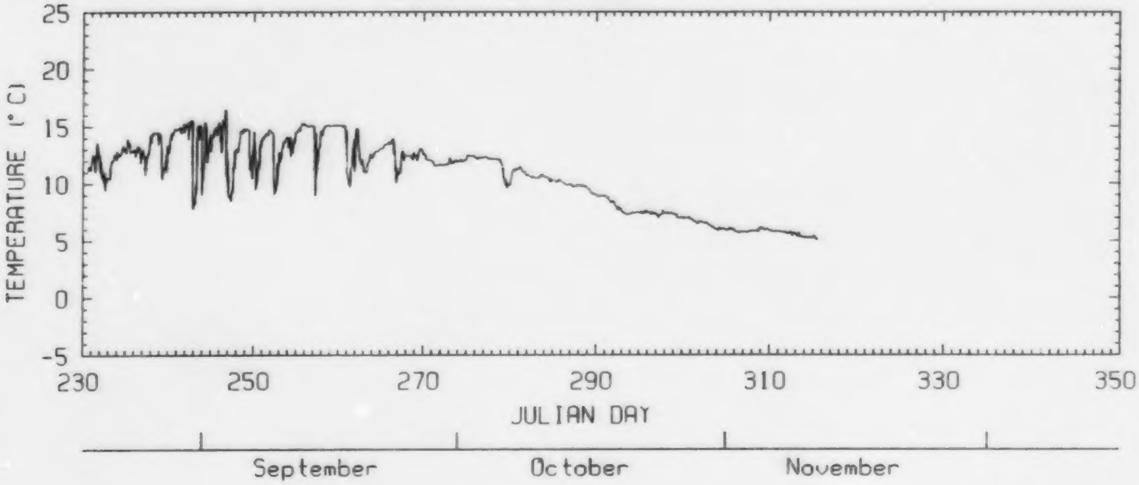
LATITUDE
COMFORT COVE, NOTRE DAME BAY
LONGITUDE



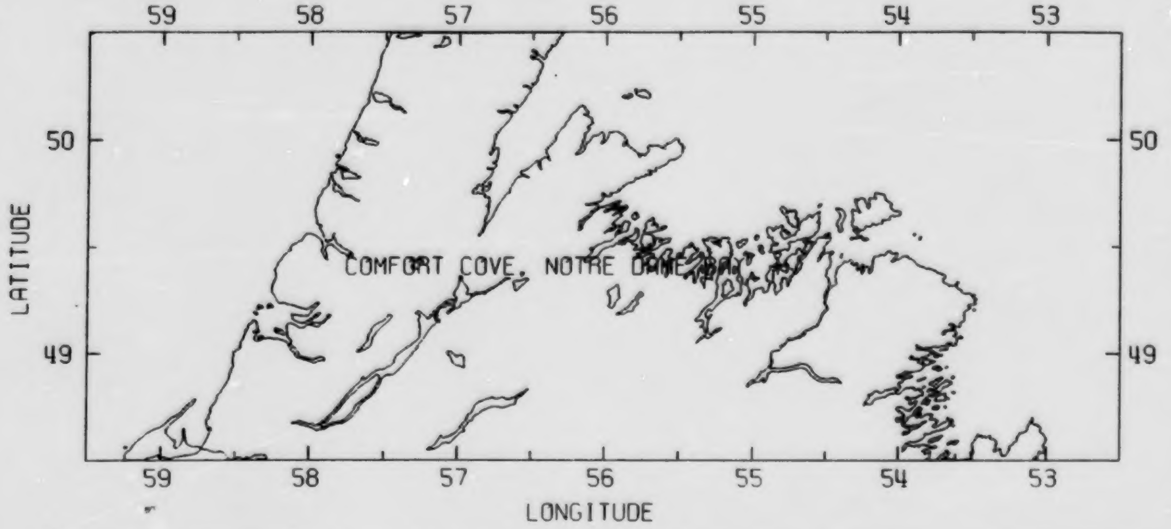
Start: 18-AUG-1999 End: 11-NOV-1999 Inst. S/N:8971

THERMOGRAPH DATA SUMMARY

STATION NAME:	COMFORT COVE, NOTRE DAME BAY
STATION NUMBER:	118
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007821
LATITUDE:	49.41° N
LONGITUDE:	54.83° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	18-AUG-1999 14:00 GMT
RECOVERY DATE/TIME:	11-NOV-1999 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	7.55	242	15.45	242	12.76	1.61	177.7	121.7	322
SEP-1999	8.30	247	16.40	246	12.89	1.60	386.8	266.8	720
OCT-1999	5.70	304	12.35	275	8.99	2.01	278.6	154.6	744
NOV-1999	4.90	315	5.95	305	5.55	0.26	60.9	16.9	255
Total Period	4.90	315	16.40	246	10.53	3.08	904.0	560.0	2041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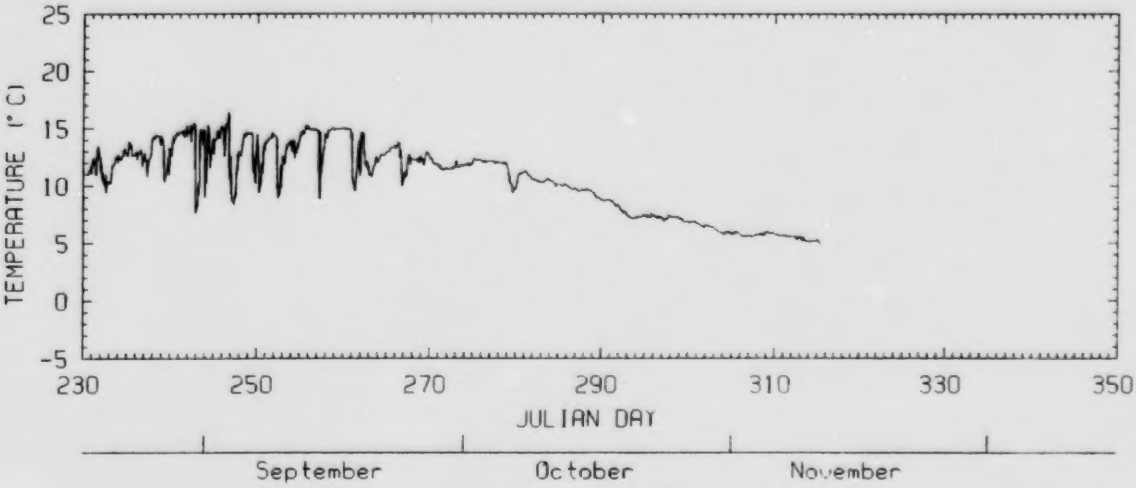
LATITUDE
LONGITUDE
COMFORT COVE, NOTRE DAME BAY



Start: 18-AUG-1999 End: 11-NOV-1999 Inst. S/N:7821

THERMOGRAPH DATA SUMMARY

STATION NAME: HERRING NECK

STATION NUMBER: 125

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 006782

LATITUDE: 49.63° N

LONGITUDE: 54.58° W

INSTRUMENT DEPTH: 10 m

WATER DEPTH: 13 m

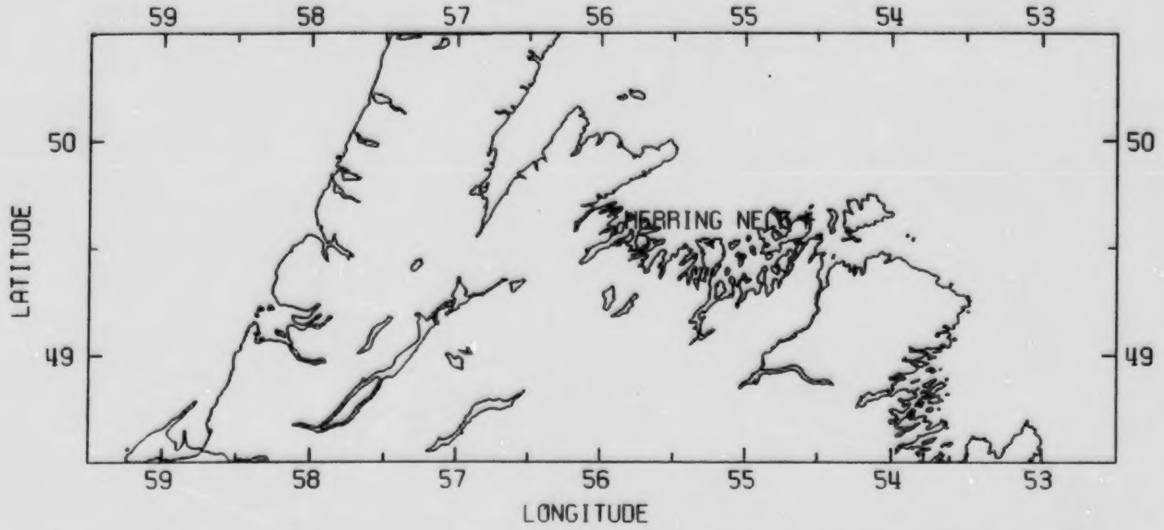
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 5-MAY-1998 13:00 GMT

RECOVERY DATE/TIME: 9-DEC-1998 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	-0.85	132	6.70	129	1.97	1.85	54.9	3.5	635
JUN-1998	1.00	156	9.40	180	3.86	1.71	115.9	17.8	720
JUL-1998	0.75	192	14.00	205	7.85	2.99	243.4	124.7	744
AUG-1998	5.30	226	14.95	224	12.52	1.40	388.2	264.2	744
SEP-1998	7.65	272	13.60	246	10.78	1.28	323.2	203.3	720
OCT-1998	5.75	292	10.50	275	7.96	1.32	246.8	122.8	744
NOV-1998	2.75	334	6.50	305	4.38	1.07	131.5	20.8	720
DEC-1998	1.65	343	3.05	335	2.33	0.35	20.7	0.0	204
Total Period	-0.85	132	14.95	224	6.98	3.97	1524.7	757.1	5231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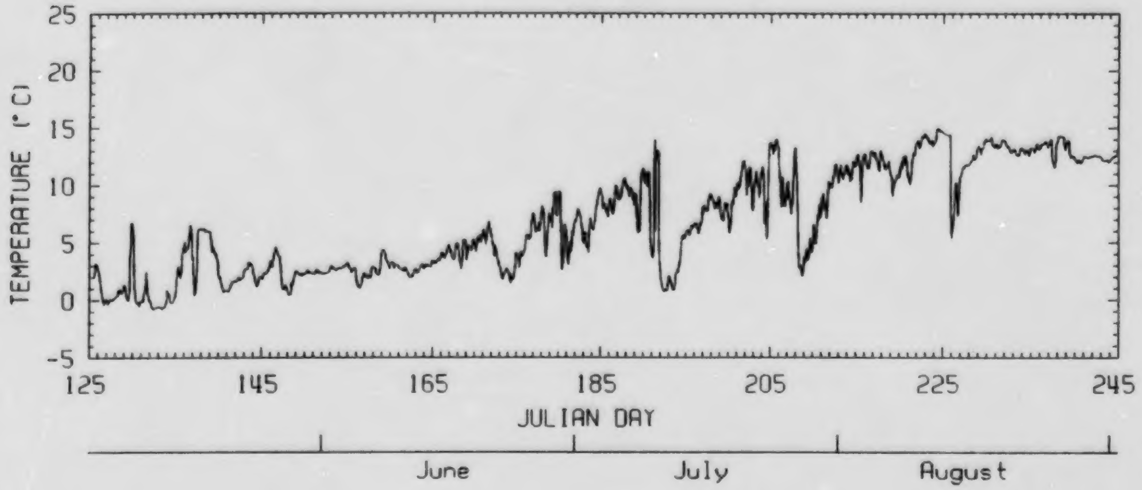
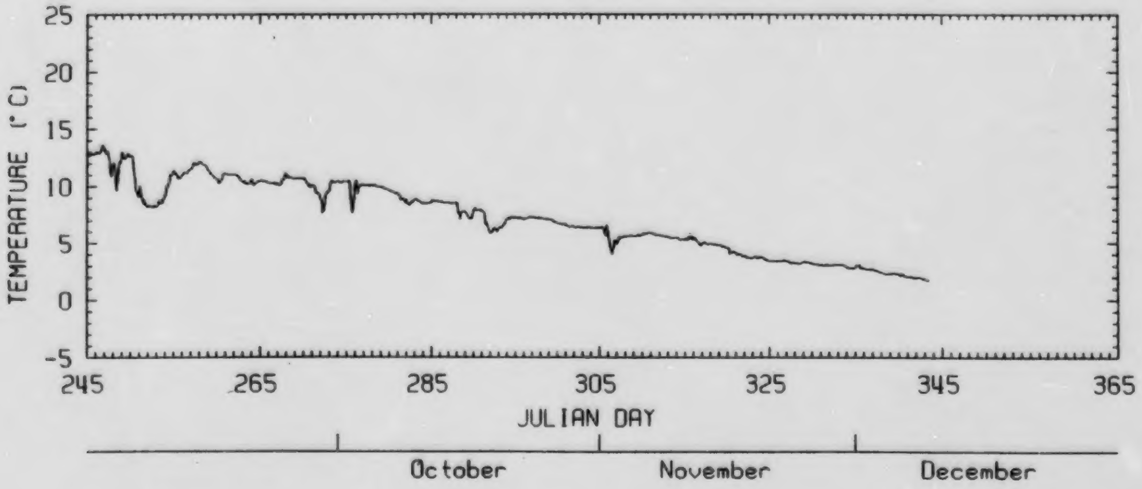
LATITUDE
HERRING NECK
LONGITUDE





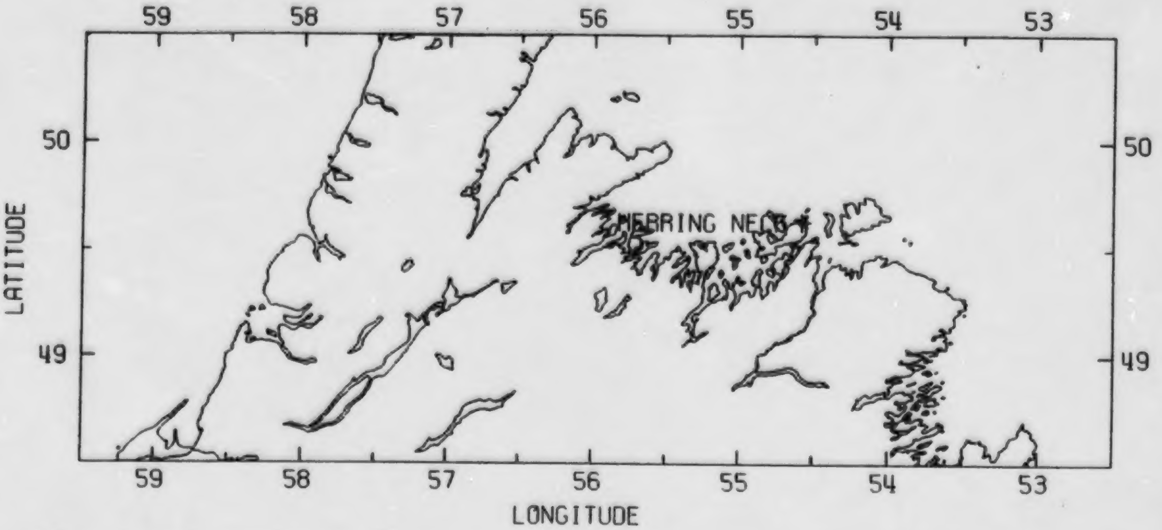
Start: 5-MAY-1998 End: 9-DEC-1998 Inst. S/N:6782

THERMOGRAPH DATA SUMMARY

STATION NAME:	HERRING NECK
STATION NUMBER:	125
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008961
LATITUDE:	49.63° N
LONGITUDE:	54.58° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	13 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	1-MAY-1999 15:00 GMT
RECOVERY DATE/TIME:	7-OCT-1999 09:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	-0.70	143	5.15	151	1.12	1.16	34.9	0.0	729
JUN-1999	-0.10	155	13.35	179	5.97	2.10	179.2	63.9	720
JUL-1999	3.80	182	14.80	200	11.32	1.88	350.8	226.8	744
AUG-1999	4.90	222	15.80	221	12.25	1.64	379.9	255.9	744
SEP-1999	7.25	261	14.30	246	12.13	1.01	363.8	243.8	720
OCT-1999	11.45	274	13.90	280	12.88	0.70	90.7	62.7	154
Total Period	-0.70	143	15.80	221	8.76	4.65	1399.3	853.0	3811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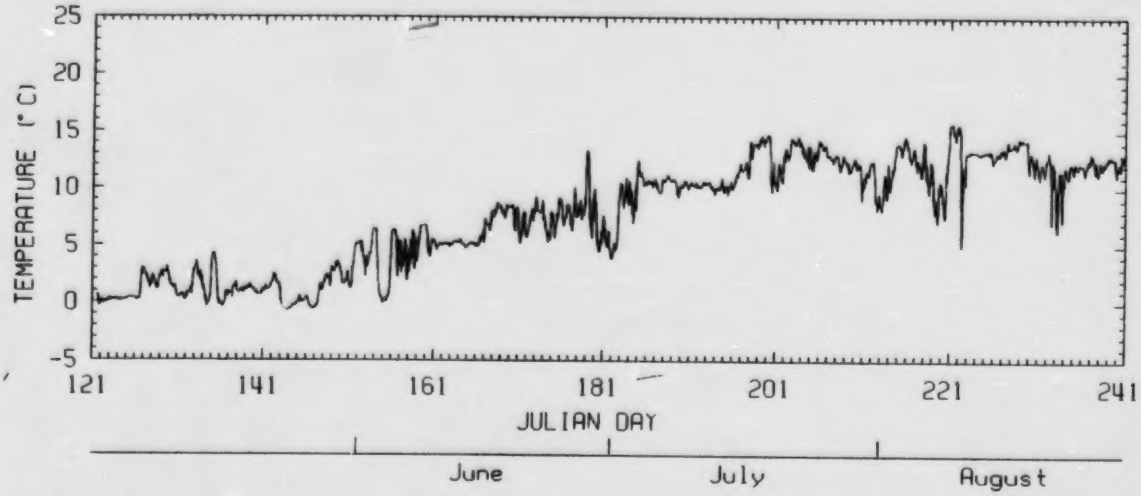
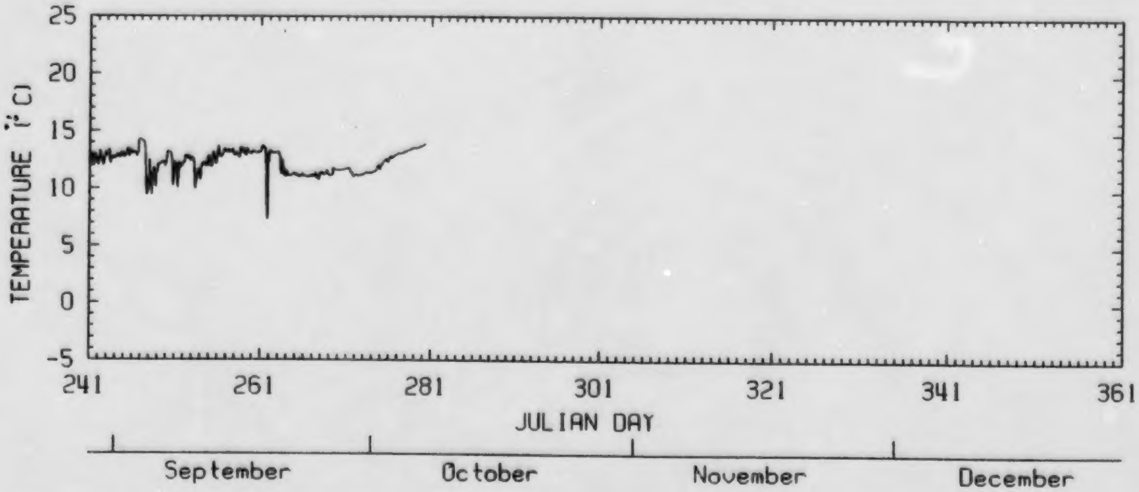
LATITUDE
HERRING NECK
LONGITUDE





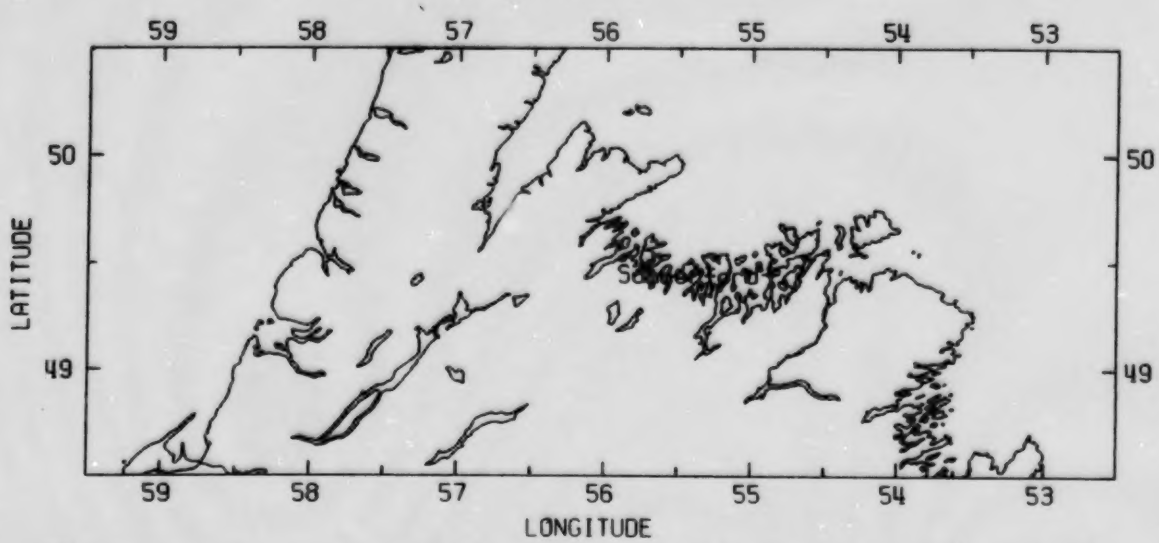
Start: 1-MAY-1999 End: 7-OCT-1999 Inst. S/N:8961

THERMOGRAPH DATA SUMMARY

STATION NAME:	Summerford
STATION NUMBER:	241
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006437
LATITUDE:	49.45° N
LONGITUDE:	54.87° W
INSTRUMENT DEPTH:	53 m
WATER DEPTH:	55 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	29-JUN-1998 21:00 GMT
RECOVERY DATE/TIME:	20-OCT-1998 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	-0.70	180	-0.40	181	-0.66	0.07	0.0	0.0	27
JUL-1998	-0.90	183	-0.30	211	-0.63	0.13	0.0	0.0	744
AUG-1998	-0.90	236	0.80	230	-0.12	0.37	2.6	0.0	744
SEP-1998	-1.20	268	2.20	252	-0.30	0.76	6.1	0.0	720
OCT-1998	-1.20	274	-0.60	288	-1.06	0.16	0.0	0.0	467
Total Period	-1.20	268	2.20	252	-0.48	0.56	8.7	0.0	2702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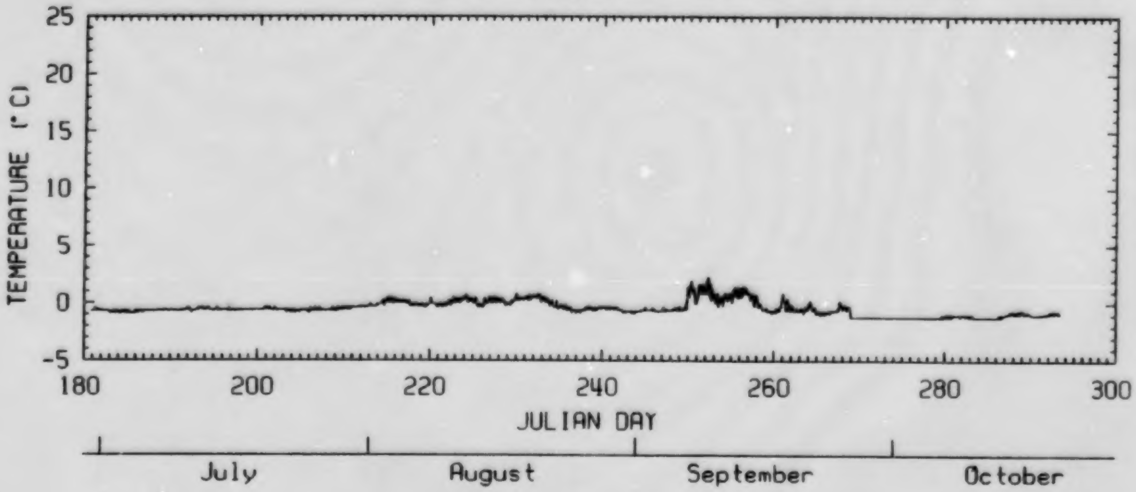
LATITUDE
LONGITUDE



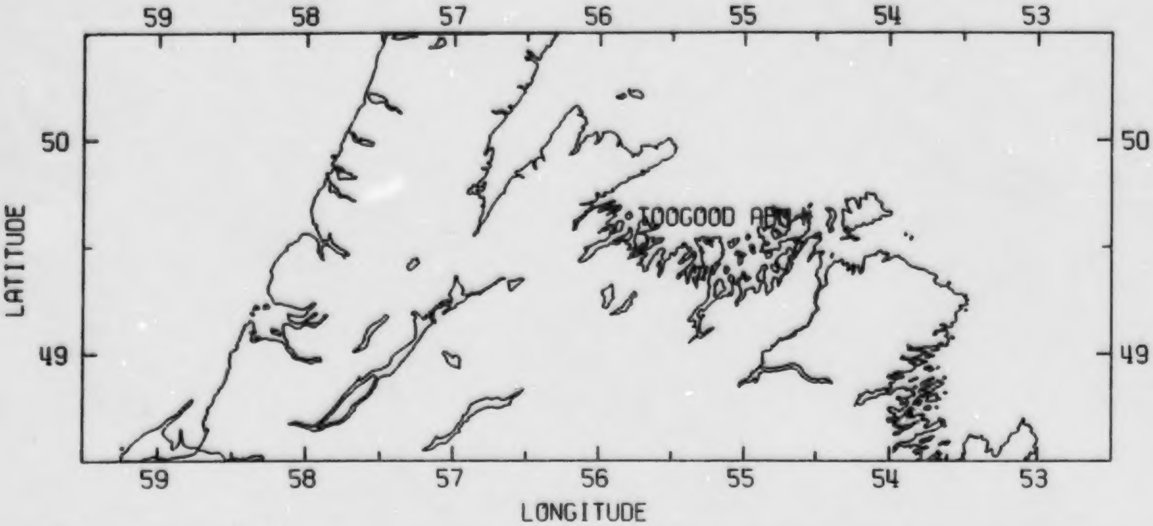
Start: 29-JUN-1998 End: 20-OCT-1998 Inst. S/N:6437

THERMOGRAPH DATA SUMMARY

STATION NAME:	TOOGOOD ARM
STATION NUMBER:	261
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004348
LATITUDE:	49.64° N
LONGITUDE:	54.59° W
INSTRUMENT DEPTH:	37 m
WATER DEPTH:	38 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	28-JUN-1999 24:00 GMT
RECOVERY DATE/TIME:	10-NOV-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	**MIN (°C)**	**DAY**	**MAX (°C)**	**DAY**	**MEAN (°C)**	**STD. DEV.**	**DEGREE DAY 0**	**DEGREE DAY 4**	**NO. SAMP.**
JUN-1999	-0.50	180	0.20	180	-0.26	0.22	0.0	0.0	48
JUL-1999	-0.50	182	2.70	191	0.86	0.53	26.7	0.0	744
AUG-1999	-0.50	225	3.60	222	0.89	0.69	27.6	0.0	744
SEP-1999	-0.50	263	9.10	267	1.98	1.37	59.5	0.7	720
OCT-1999	-0.20	279	8.70	285	4.03	1.82	125.0	19.2	744
NOV-1999	2.10	314	4.30	309	2.87	0.54	28.5	0.0	230
Total Period	-0.50	180	9.10	267	1.98	1.74	267.4	20.0	3230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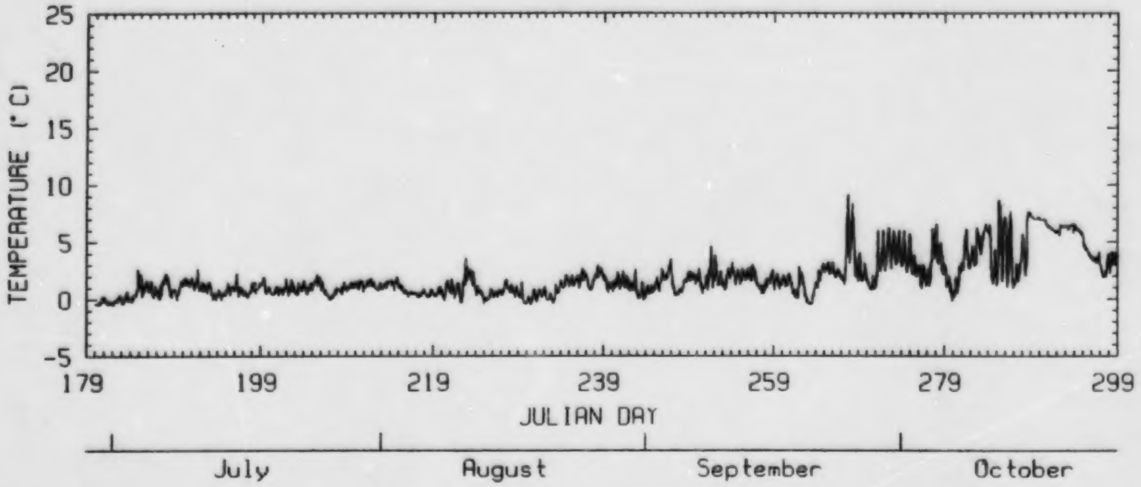
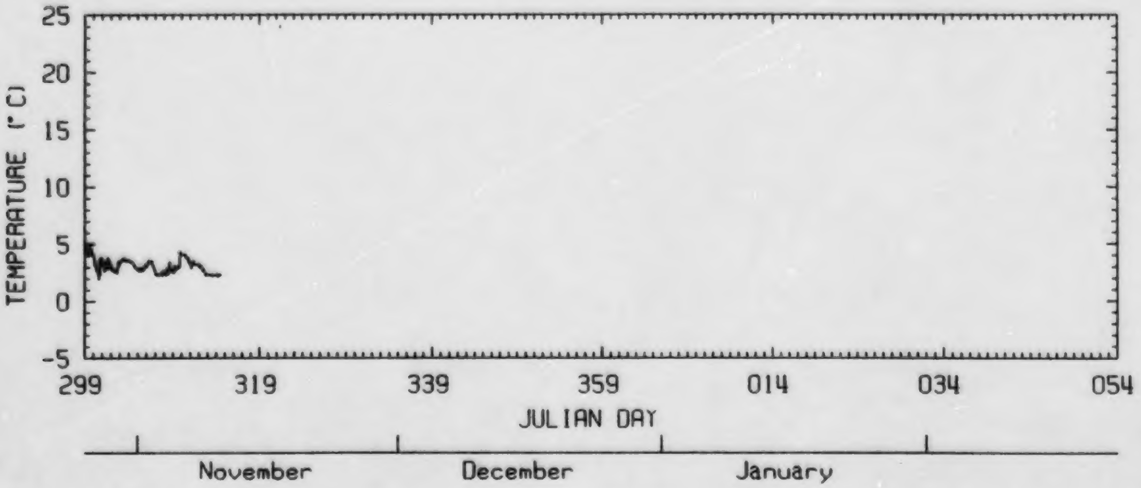
LATITUDE
LONGITUDE
TOOGOOD ARM





Start:28-JUN-1999 End:10-NOV-1999 Inst. S/N:4348

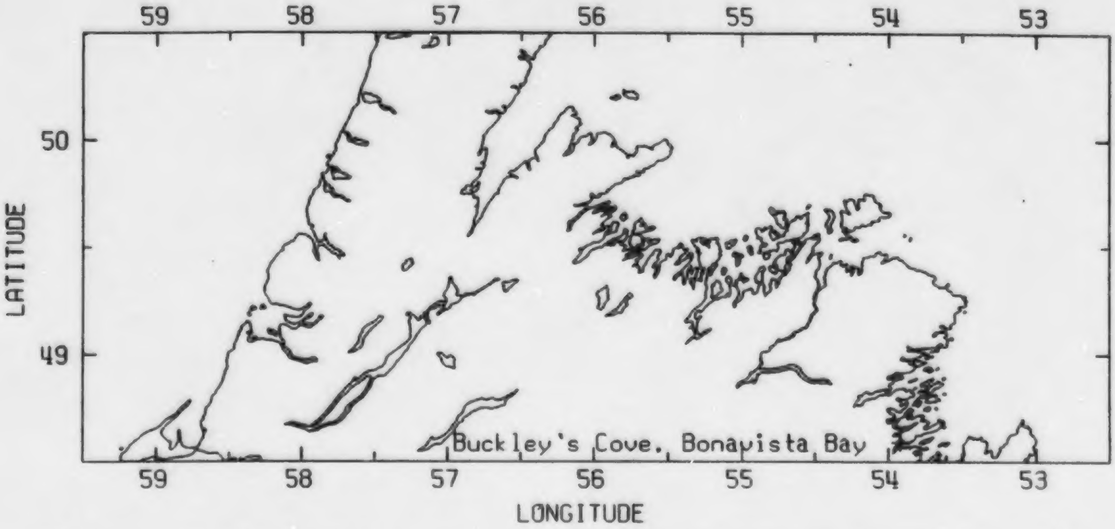
Appendix 7. Time Series Plots and Monthly Statistics from Unit Area 3La.

THERMOGRAPH DATA SUMMARY

STATION NAME:	Buckley's Cove, Bonavista Bay
STATION NUMBER:	226
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008A0A
LATITUDE:	48.59° N
LONGITUDE:	53.92° W
INSTRUMENT DEPTH:	6 m
WATER DEPTH:	6 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	18-AUG-1997 16:00 GMT
RECOVERY DATE/TIME:	19-AUG-1997 19:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1997	12.25	231	14.25	230	13.45	0.72	27.2	19.2	27
Total Period	12.25	231	14.25	230	13.45	0.72	27.2	19.2	27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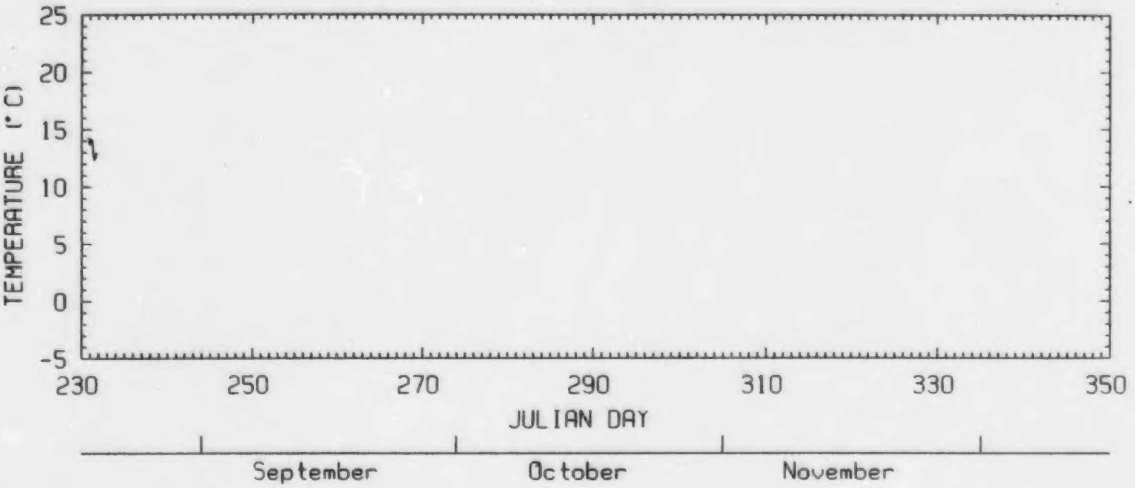
LATITUDE
Buckley's Cove, Bonavista Bay
LONGITUDE



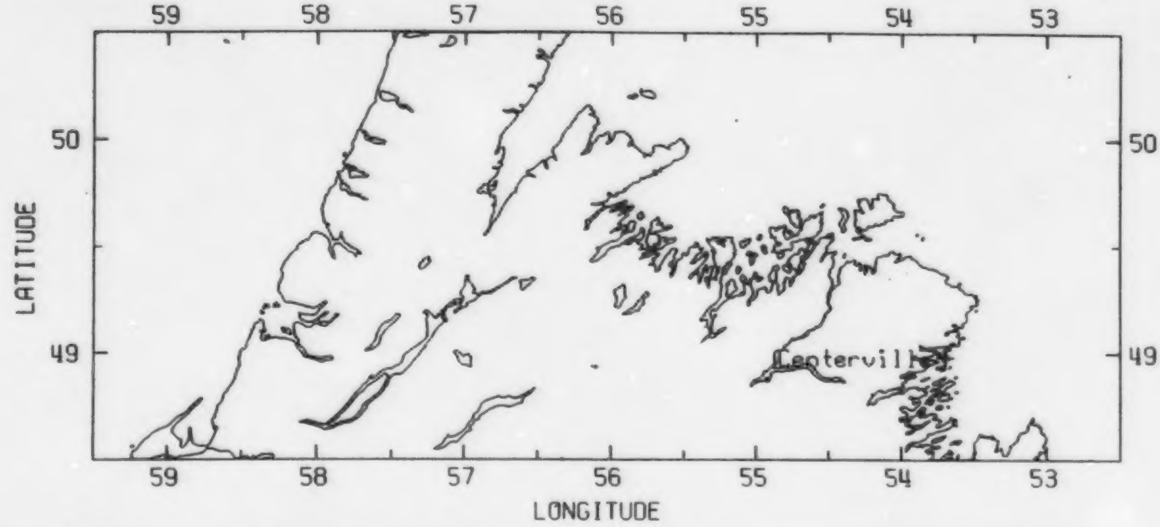
Start: 18-AUG-1997 End: 19-AUG-1997 Inst. S/N:8A0A

THERMOGRAPH DATA SUMMARY

STATION NAME:	Centerville
STATION NUMBER:	240
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006444
LATITUDE:	48.98° N
LONGITUDE:	53.70° W
INSTRUMENT DEPTH:	20 m
WATER DEPTH:	22 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	4-AUG-1998 23:00 GMT
RECOVERY DATE/TIME:	7-OCT-1998 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1998	3.10	227	15.90	224	10.90	2.94	302.8	190.8	649
SEP-1998	1.30	272	14.30	246	9.43	2.21	282.9	162.9	720
OCT-1998	-0.40	277	8.90	275	5.07	3.21	37.3	15.8	155
Total Period	-0.40	277	15.90	224	9.61	3.14	622.9	369.4	1524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LATITUDE
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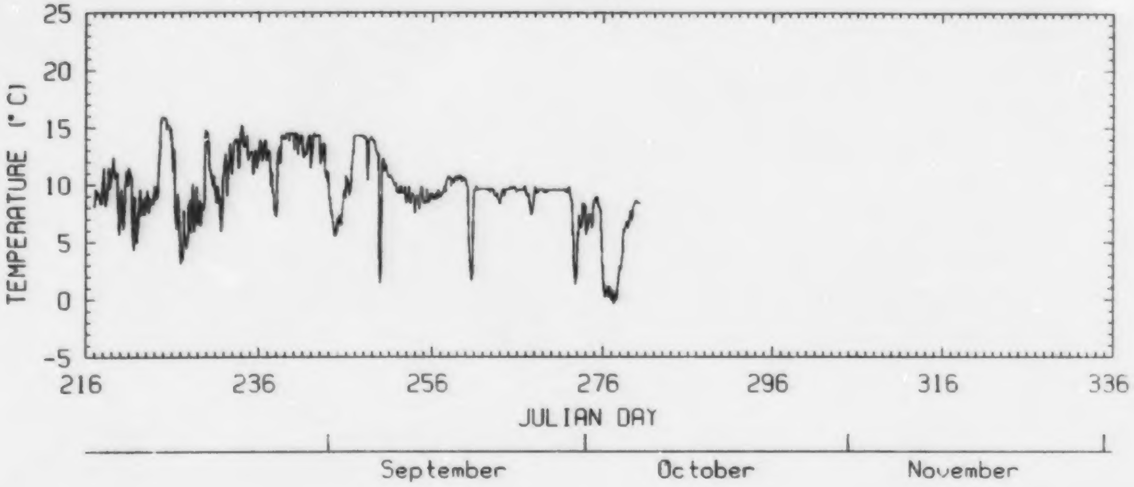
Centerville
LONGITUDE



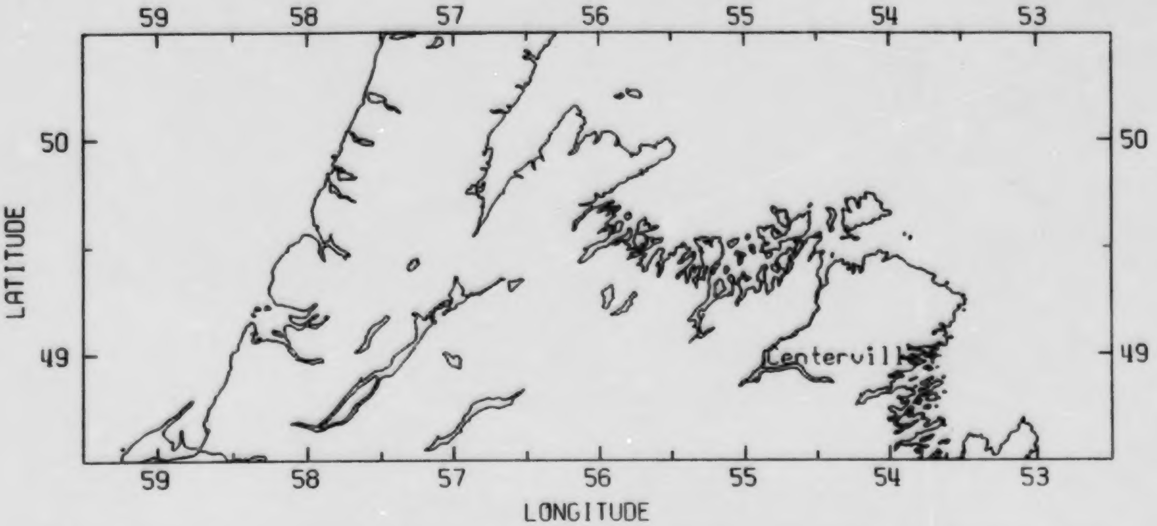
Start: 4-AUG-1998 End: 7-OCT-1998 Inst. S/N:6444

THERMOGRAPH DATA SUMMARY

STATION NAME:	Centerville
STATION NUMBER:	240
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	003817
LATITUDE:	48.99° N
LONGITUDE:	53.70° W
INSTRUMENT DEPTH:	20 m
WATER DEPTH:	24 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	2-AUG-1999 23:00 GMT
RECOVERY DATE/TIME:	29-SEP-1999 02:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	0.50	222	13.20	217	9.40	2.60	279.7	160.9	697
SEP-1999	0.40	267	13.80	261	11.38	2.17	329.2	213.2	675
Total Period	0.40	267	13.80	261	10.38	2.59	608.9	374.1	1372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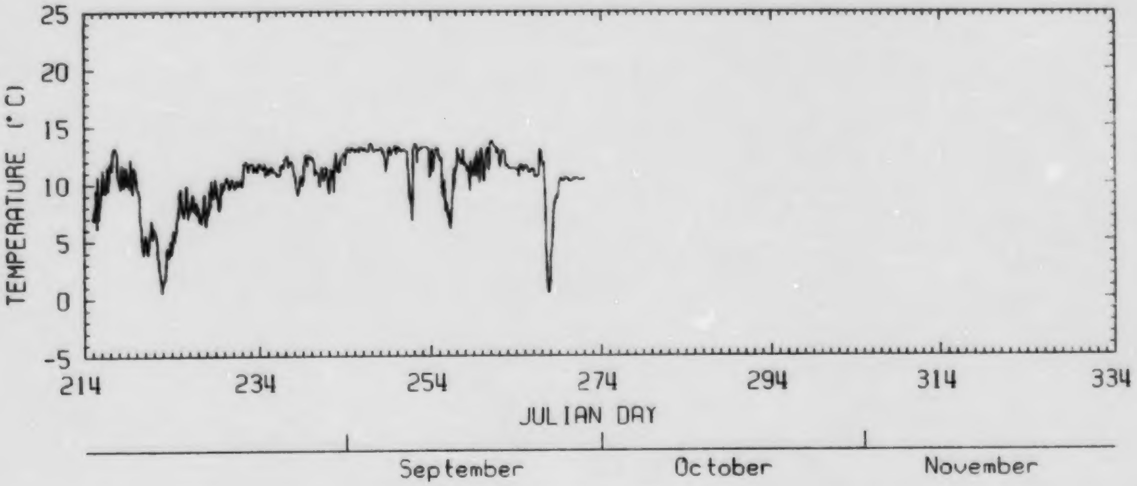
LATITUDE
LONGITUDE
Centervill



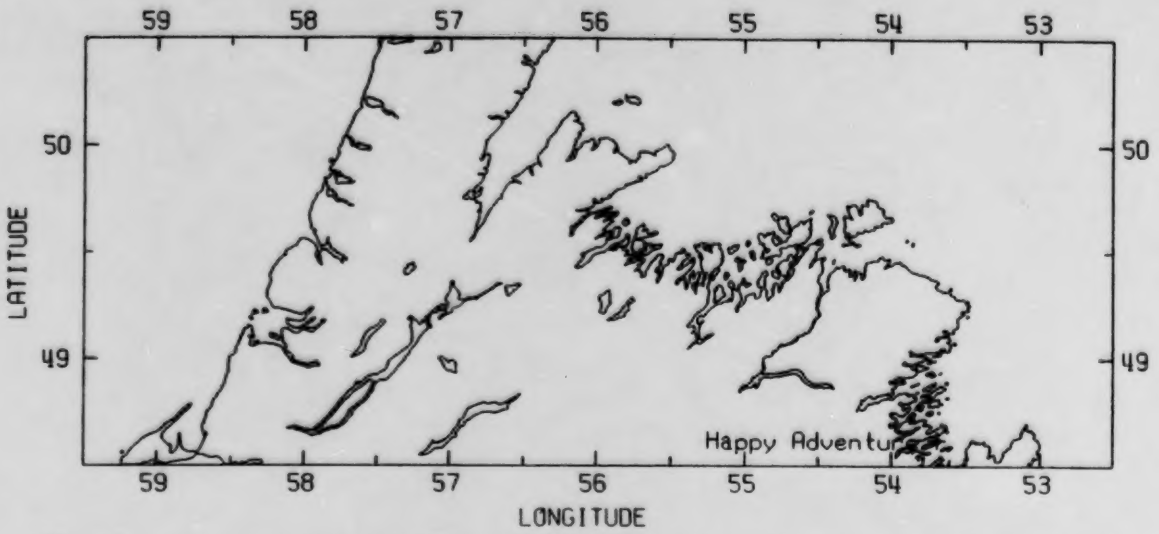
Start: 2-AUG-1999 End: 29-SEP-1999 Inst. S/N:3817

THERMOGRAPH DATA SUMMARY

STATION NAME:	Happy Adventure
STATION NUMBER:	244
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007939
LATITUDE:	48.62° N
LONGITUDE:	53.69° W
INSTRUMENT DEPTH:	32 m
WATER DEPTH:	34 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	5-AUG-1999 12:00 GMT
RECOVERY DATE/TIME:	13-SEP-1999 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	0.60	223	7.15	237	3.82	1.38	103.8	11.4	636
SEP-1999	2.85	256	12.75	247	6.68	2.15	85.0	33.8	299
Total Period	0.60	223	12.75	247	4.74	2.13	188.8	45.2	935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LATITUDE
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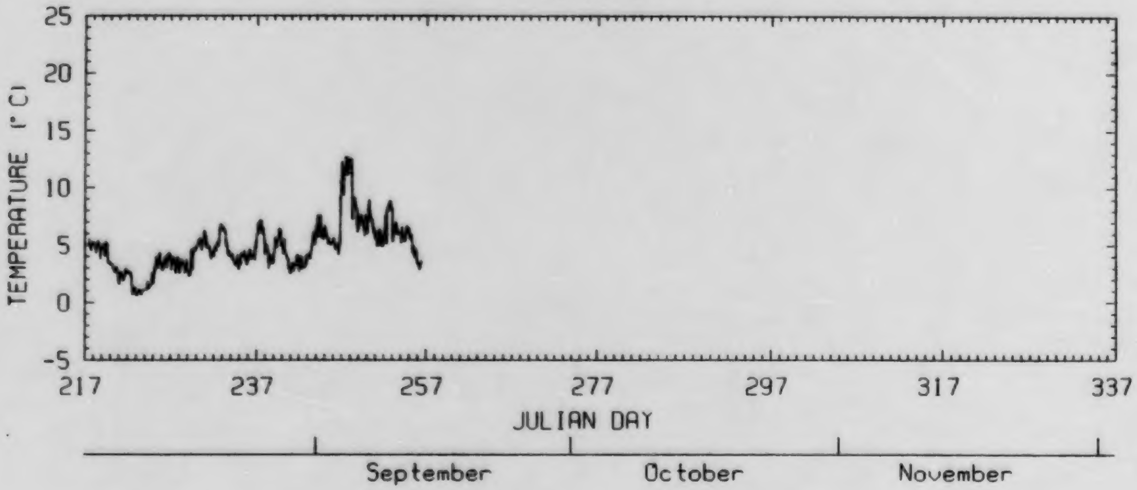


Start: 5-AUG-1999 End: 13-SEP-1999 Inst. S/N: 7939

THERMOGRAPH DATA SUMMARY

STATION NAME: Open Hall, Bonavista Bay

STATION NUMBER: 256

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 005456

LATITUDE: 48.54° N

LONGITUDE: 53.49° W

INSTRUMENT DEPTH: 6 m

WATER DEPTH: 12 m

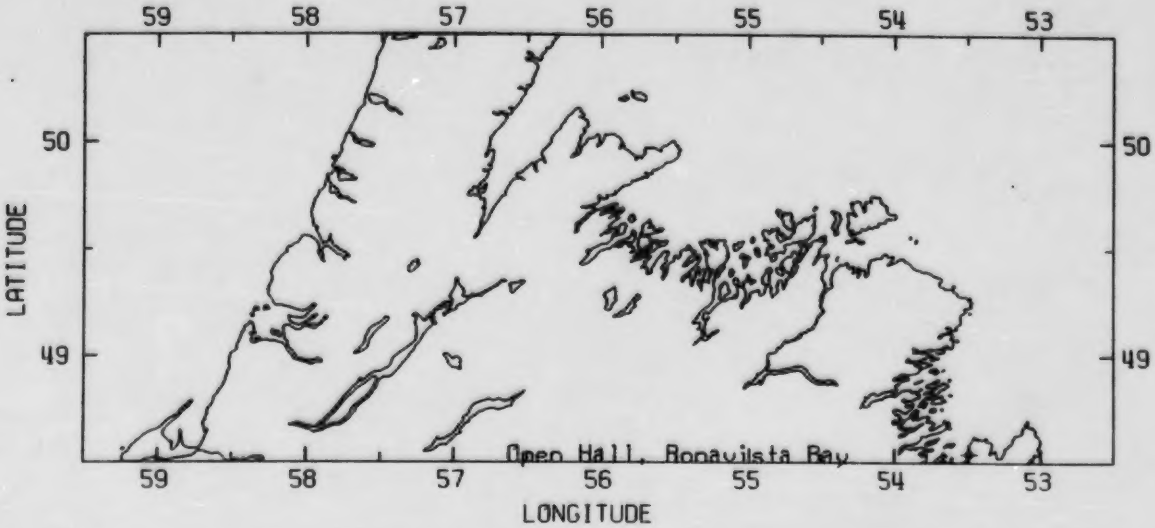
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 12-AUG-1999 16:00 GMT

RECOVERY DATE/TIME: 4-DEC-1999 18:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	8.75	232	14.45	242	12.23	1.16	244.1	164.1	464
SEP-1999	10.85	271	16.90	256	14.08	1.30	422.3	302.3	720
OCT-1999	4.80	304	12.85	276	8.81	2.53	273.1	149.1	744
NOV-1999	2.35	324	6.05	308	4.36	0.84	130.8	16.5	720
DEC-1999	1.60	338	3.95	335	3.20	0.66	12.6	0.0	91
Total Period	1.60	338	16.90	256	9.42	4.22	1082.8	632.0	2739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LATITUDE
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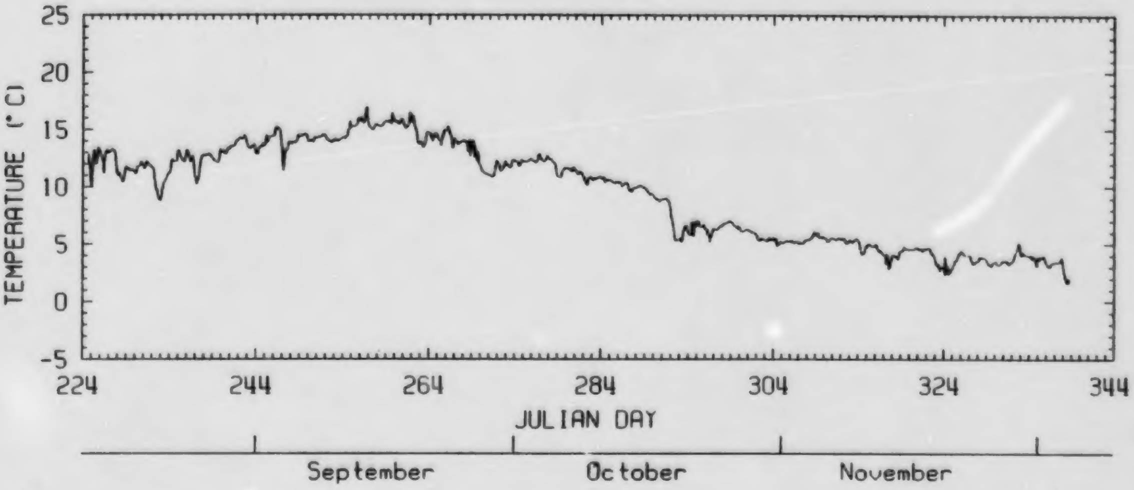
Open Hall, Bonavista Bay



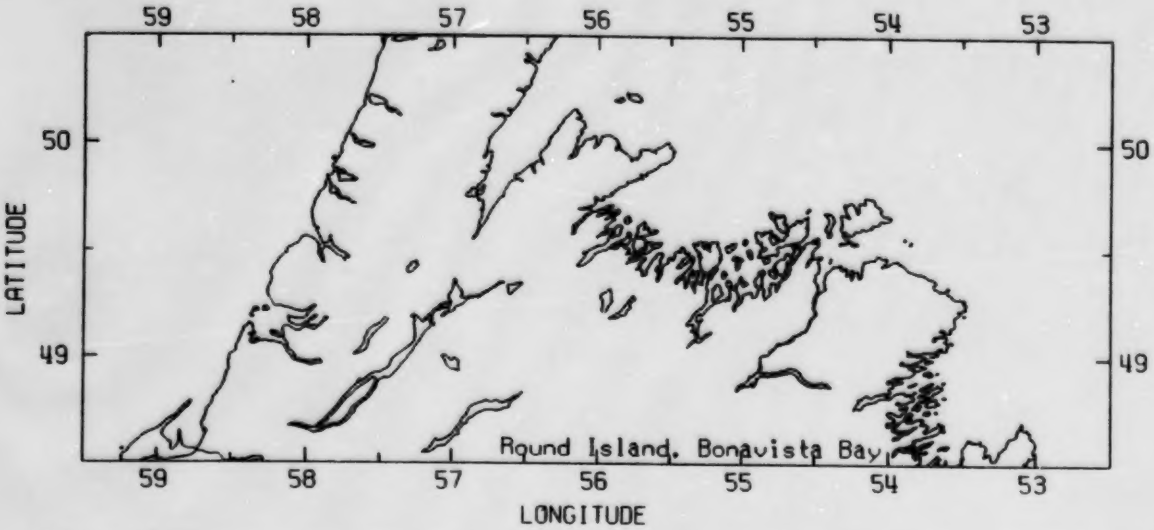
Start: 12-AUG-1999 End: 4-DEC-1999 Inst. S/N:5456

THERMOGRAPH DATA SUMMARY

STATION NAME:	Round Island, Bonavista Bay
STATION NUMBER:	243
INSTRUMENT TYPE:	Seamon Mini (Hugrun)
INSTRUMENT S/N:	00C163
LATITUDE:	48.58° N
LONGITUDE:	53.83° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	10 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-SEP-1998 10:00 GMT
RECOVERY DATE/TIME:	30-APR-1999 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1998	7.77	260	15.42	246	12.35	1.37	346.9	234.9	662
OCT-1998	1.30	277	10.85	274	7.26	1.60	225.2	103.7	744
NOV-1998	2.72	321	6.92	309	5.05	1.31	151.6	34.9	720
DEC-1998	0.50	364	3.57	336	1.64	0.82	51.0	0.0	744
JAN-1999	-1.00	31	0.65	2	-0.03	0.30	2.6	0.0	744
FEB-1999	-1.07	33	-0.07	52	-0.52	0.21	0.0	0.0	672
MAR-1999	-0.70	64	0.75	90	-0.35	0.24	0.5	0.0	744
APR-1999	-0.57	109	3.27	114	0.94	1.01	29.0	0.0	711
Total Period	-1.07	33	15.42	246	3.22	4.33	806.8	373.6	5741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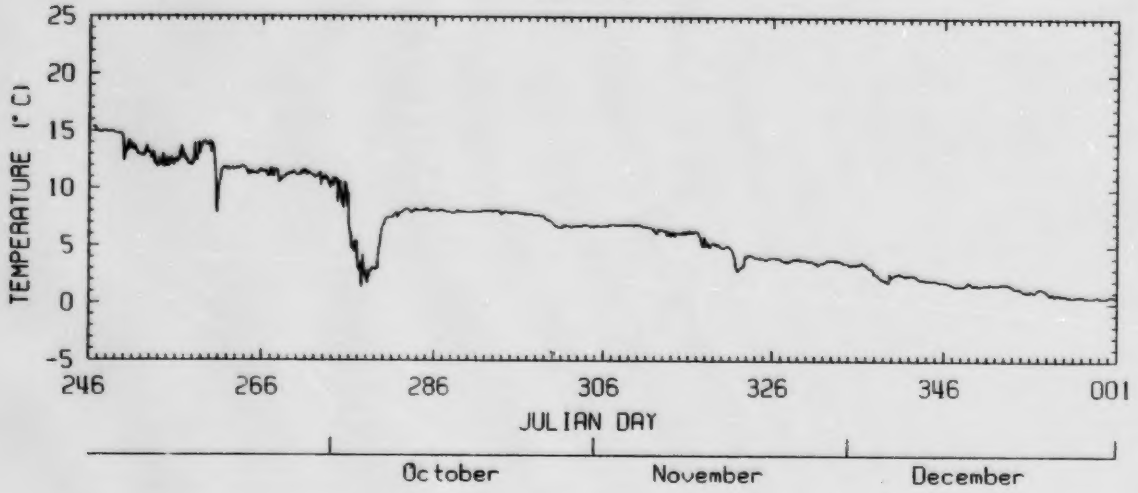
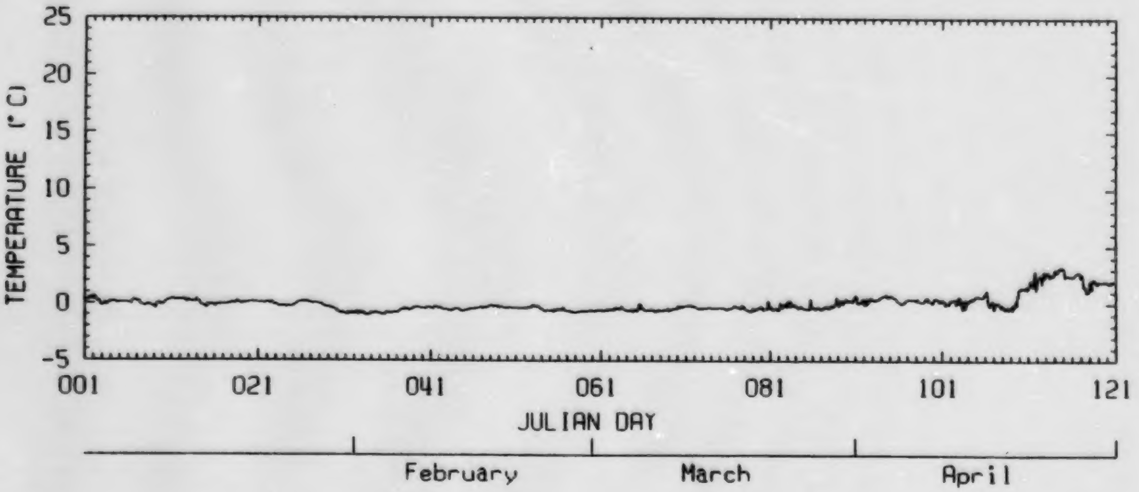
LATITUDE
LONGITUDE
Round Island, Bonavista Bay





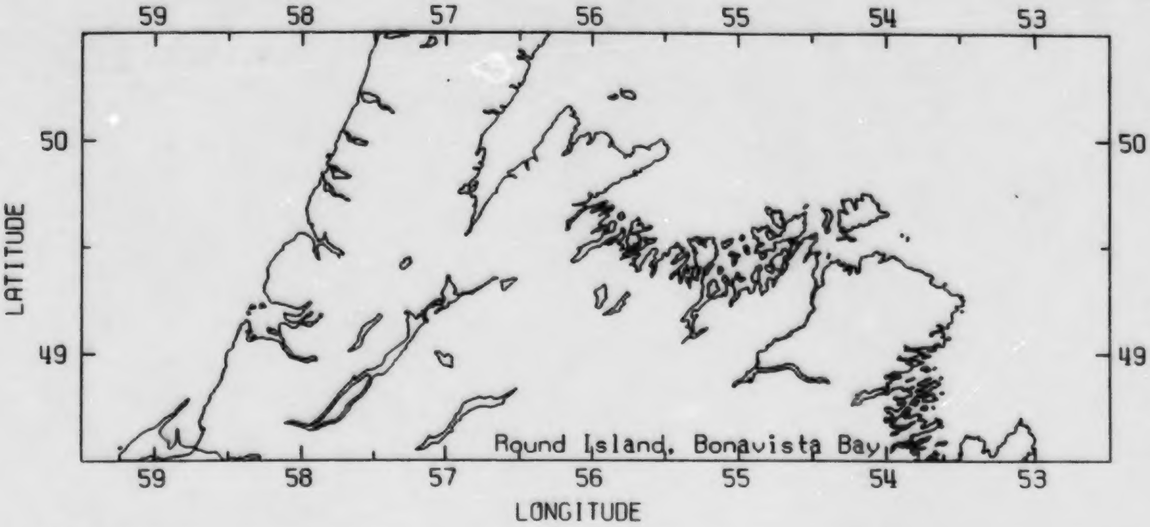
Start: 3-SEP-1998 End:30-APR-1999 Inst. S/N:C163

THERMOGRAPH DATA SUMMARY

STATION NAME:	Round Island, Bonavista Bay
STATION NUMBER:	243
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006594
LATITUDE:	48.58° N
LONGITUDE:	53.83° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	10 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-SEP-1998 10:00 GMT
RECOVERY DATE/TIME:	4-MAR-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1998	7.45	260	15.40	246	12.32	1.37	346.2	234.2	662
OCT-1998	1.10	277	10.90	274	7.28	1.61	225.7	104.3	744
NOV-1998	2.80	321	6.95	307	5.09	1.30	152.8	35.5	720
DEC-1998	0.45	364	3.65	336	1.68	0.82	52.1	0.0	744
JAN-1999	-0.95	31	0.70	2	-0.01	0.30	3.0	0.0	744
FEB-1999	-1.10	33	0.00	47	-0.46	0.22	0.0	0.0	672
MAR-1999	-0.50	60	-0.10	63	-0.40	0.09	0.0	0.0	85
Total Period	-1.10	33	15.40	246	4.15	4.55	779.8	374.0	4371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LATITUDE
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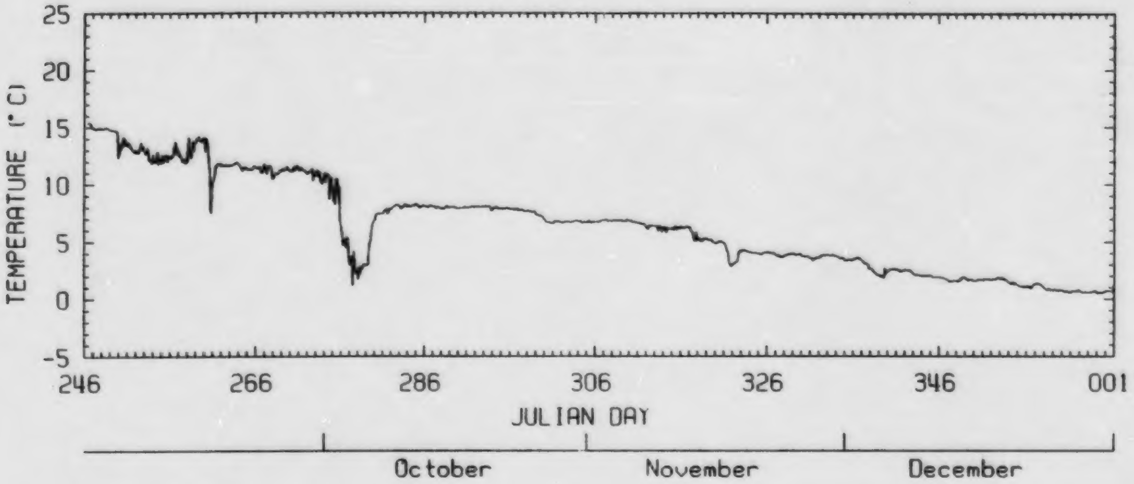
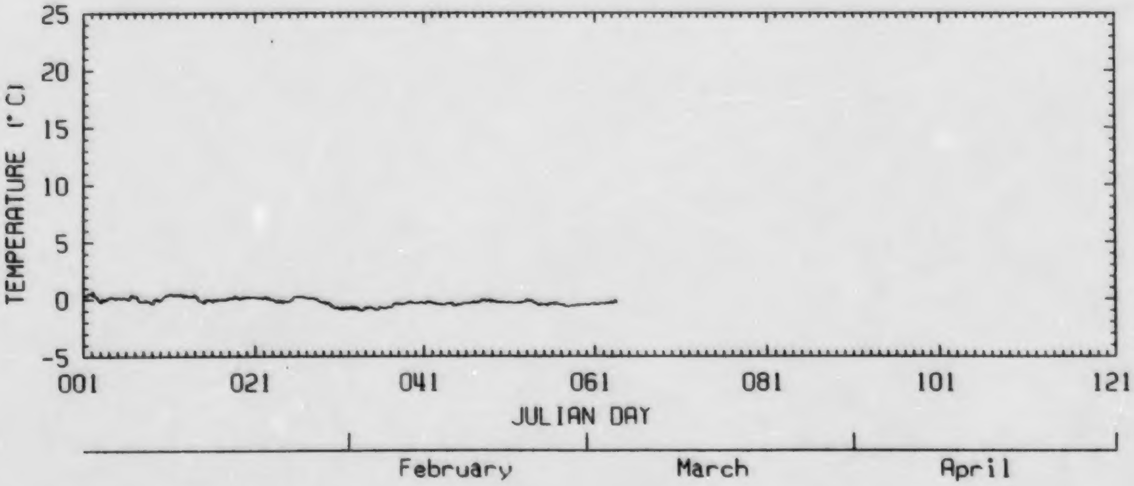
Round Island, Bonavista Bay
LONGITUDE





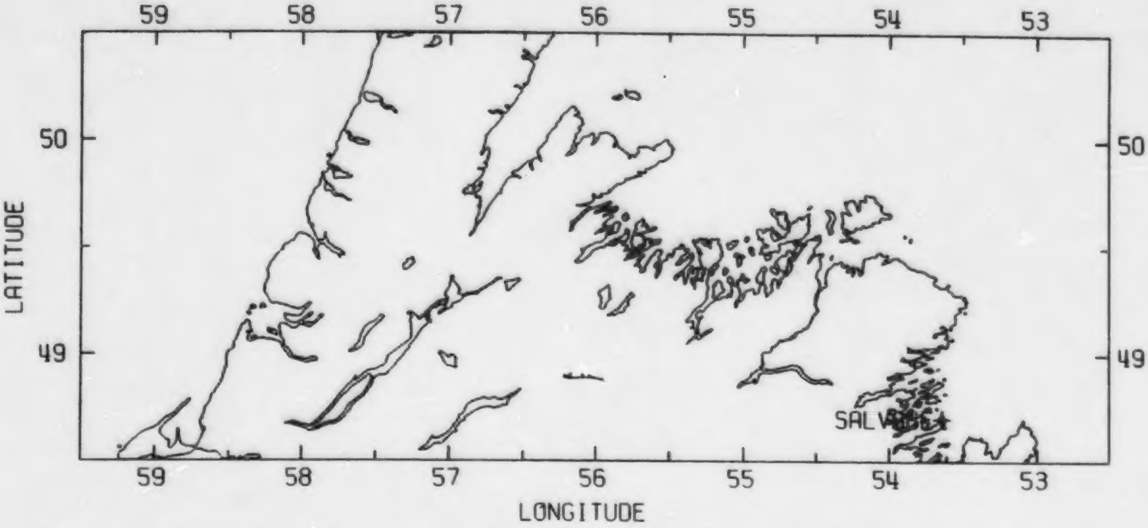
Start: 3-SEP-1998 End: 4-MAR-1999 Inst. S/N:6594

THERMOGRAPH DATA SUMMARY

STATION NAME:	SALVAGE
STATION NUMBER:	129
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007945
LATITUDE:	48.70° N
LONGITUDE:	53.64° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	10 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	8-MAY-1998 10:00 GMT
RECOVERY DATE/TIME:	29-OCT-1998 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	0.55	148	6.80	130	3.85	1.01	92.5	5.9	566
JUN-1998	2.80	156	12.20	177	7.62	2.37	228.6	108.6	720
JUL-1998	6.95	184	15.00	201	11.38	1.72	352.9	228.9	744
AUG-1998	7.45	215	16.60	221	14.66	1.72	454.6	330.6	744
SEP-1998	8.15	272	15.50	245	12.26	1.56	367.8	247.8	720
OCT-1998	5.45	278	11.25	274	7.69	0.92	222.7	106.7	690
Total Period	0.55	148	16.60	221	9.84	3.84	1719.1	1028.5	4184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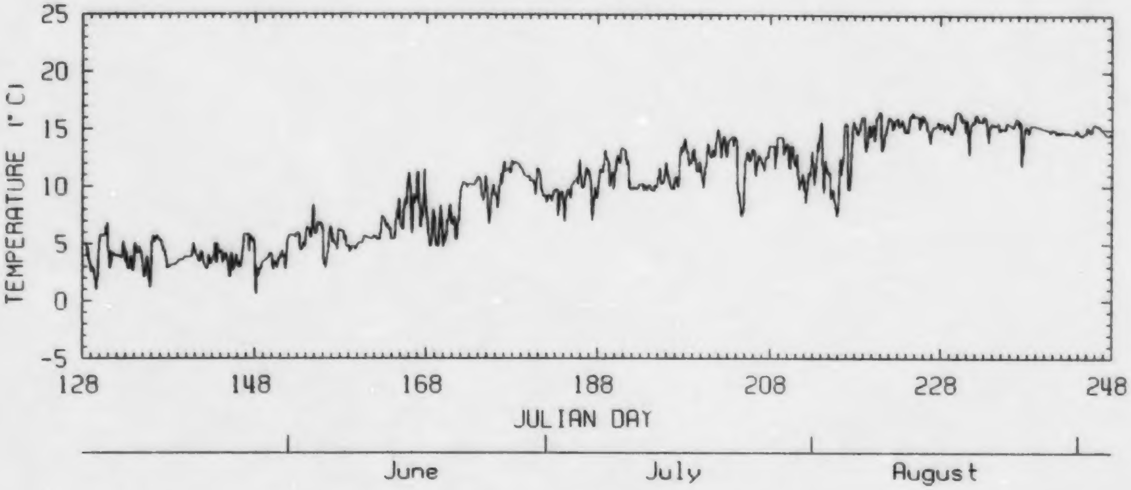
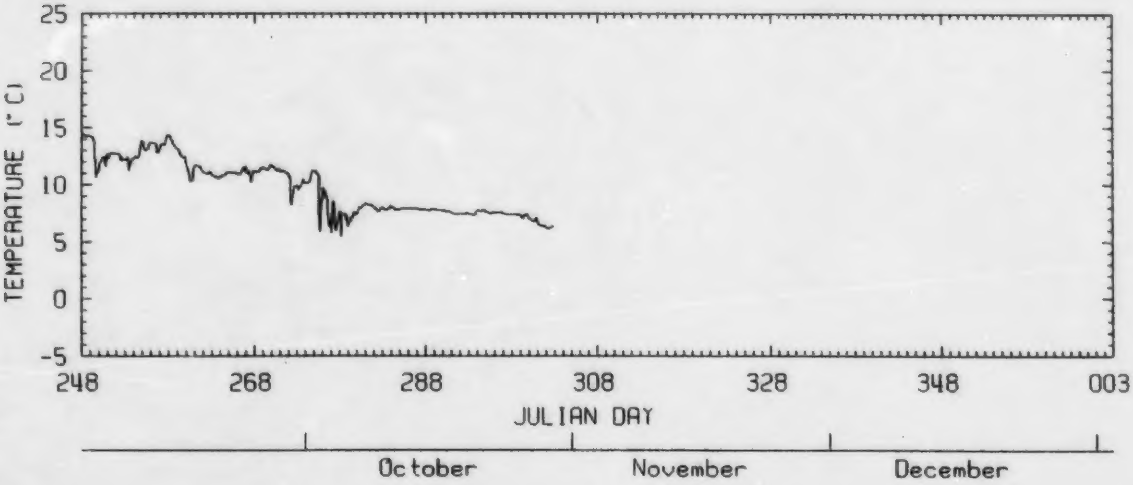
LONGITUDE





Start: 8-MAY-1998 End:29-OCT-1998 Inst. S/N:7945

THERMOGRAPH DATA SUMMARY

STATION NAME: SALVAGE

STATION NUMBER: 129

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 007820

LATITUDE: 48.70° N

LONGITUDE: 53.64° W

INSTRUMENT DEPTH: 10 m

WATER DEPTH: 10 m

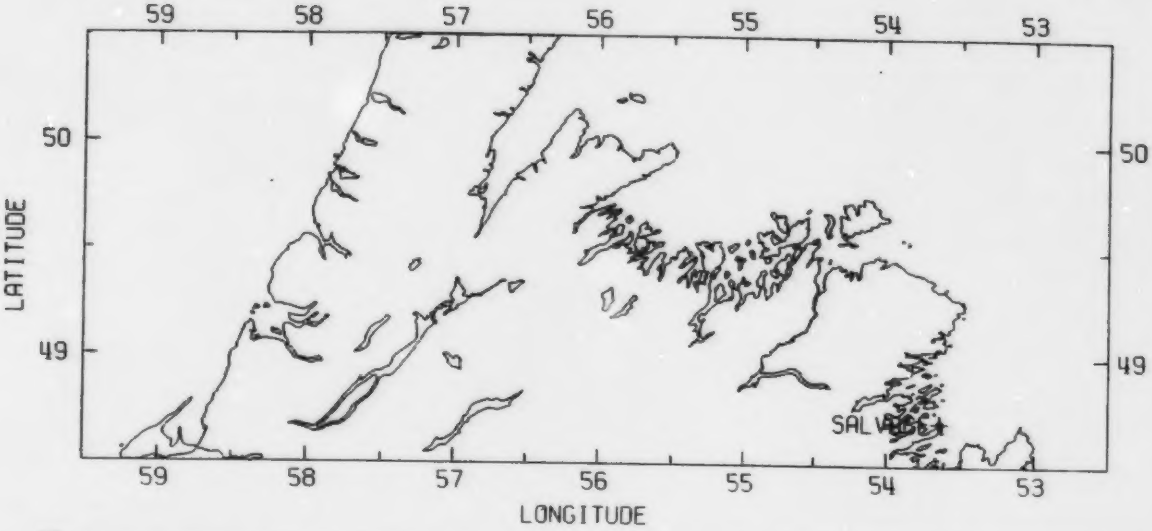
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 4-MAY-1999 10:00 GMT

RECOVERY DATE/TIME: 4-NOV-1999 09:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	0.10	132	7.50	129	4.01	1.65	111.9	15.7	662
JUN-1999	1.55	158	12.75	175	8.35	2.28	250.5	130.5	720
JUL-1999	3.95	184	16.15	212	12.05	1.84	373.4	249.4	744
AUG-1999	2.45	222	18.35	217	11.83	2.85	366.8	242.8	744
SEP-1999	5.50	267	15.05	257	13.00	1.67	390.0	270.0	720
OCT-1999	3.20	288	11.45	276	7.87	2.47	244.1	120.1	744
NOV-1999	4.60	305	5.00	305	4.84	0.08	19.4	3.4	82
Total Period	0.10	132	18.35	217	9.52	3.78	1756.0	1031.9	4416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LATITUDE
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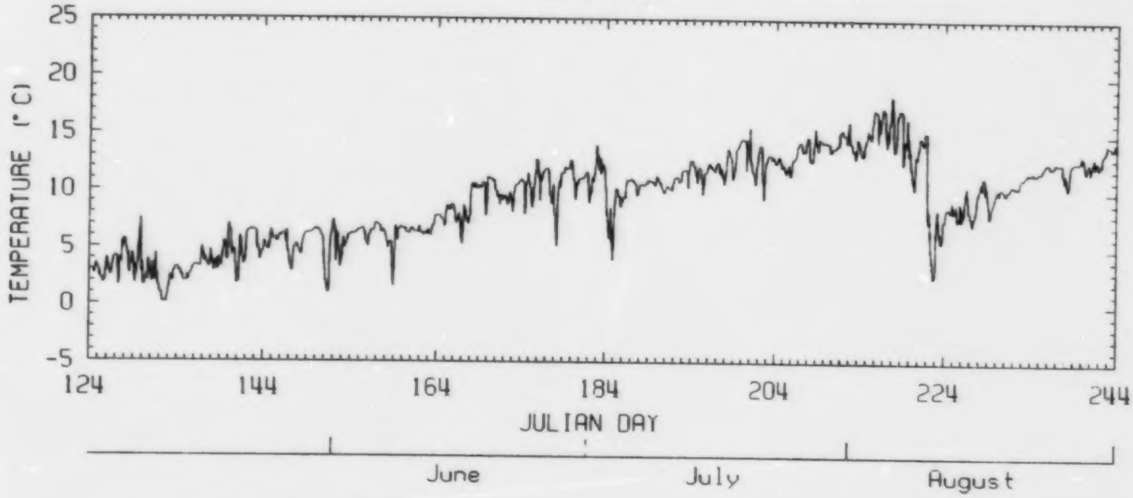
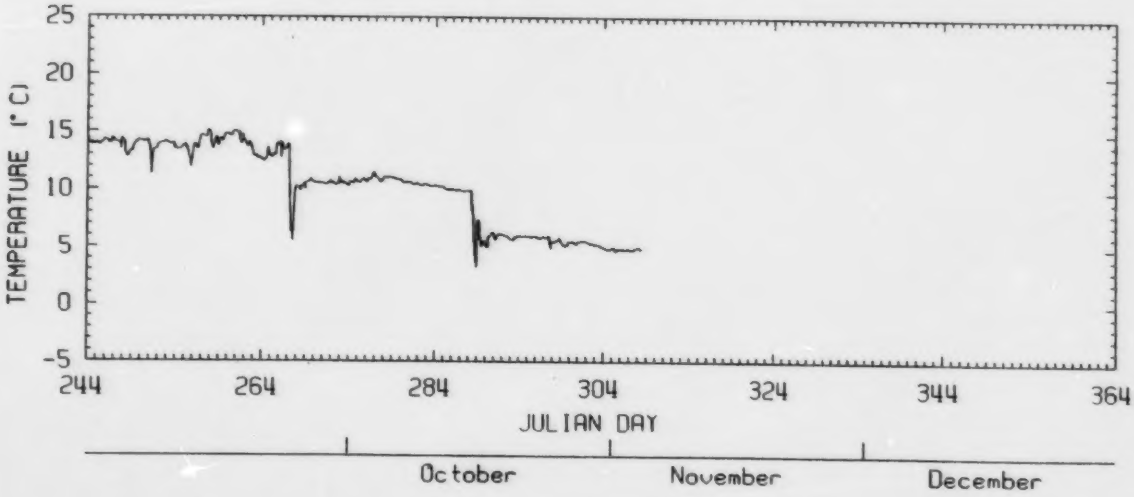




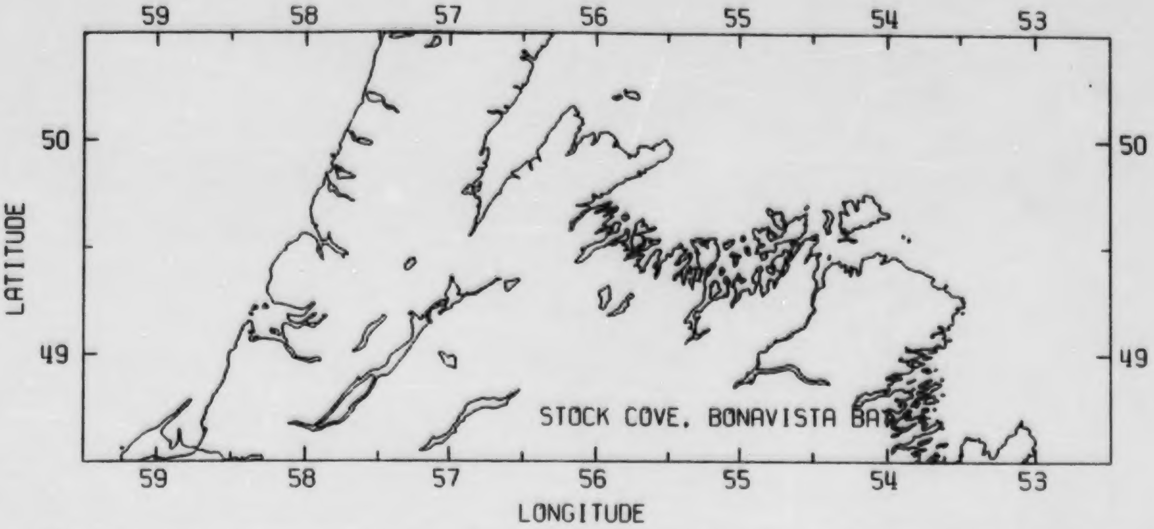
Start: 4-MAY-1999 End: 4-NOV-1999 Inst. S/N:7820

THERMOGRAPH DATA SUMMARY

STATION NAME:	STOCK COVE, BONAVISTA BAY
STATION NUMBER:	110
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006645
LATITUDE:	48.71° N
LONGITUDE:	53.76° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	26-NOV-1997 19:00 GMT
RECOVERY DATE/TIME:	16-MAY-1998 03:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	**MIN (°C)**	**DAY**	**MAX (°C)**	**DAY**	**MEAN (°C)**	**STD. DEV.**	**DEGREE DAY 0**	**DEGREE DAY 4**	**NO. SAMP.**
NOV-1997	2.70	332	3.55	330	3.18	0.22	16.2	0.0	101
DEC-1997	0.15	357	3.55	336	2.17	0.91	67.3	0.0	744
JAN-1998	-1.45	24	1.80	1	-0.28	0.66	4.7	0.0	744
FEB-1998	-1.80	41	-0.35	45	-1.12	0.30	0.0	0.0	672
MAR-1998	-1.75	82	-0.50	88	-1.13	0.24	0.0	0.0	744
APR-1998	-1.25	109	1.70	118	-0.19	0.58	4.6	0.0	720
MAY-1998	-0.65	124	4.90	131	1.10	1.53	18.0	0.1	364
Total Period	-1.80	41	4.90	131	0.10	1.48	110.8	0.1	4089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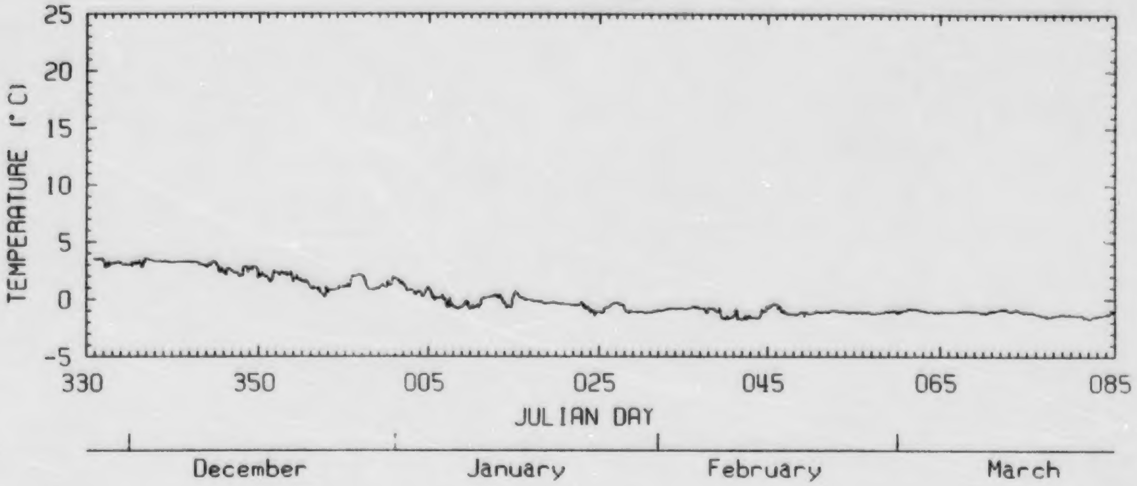
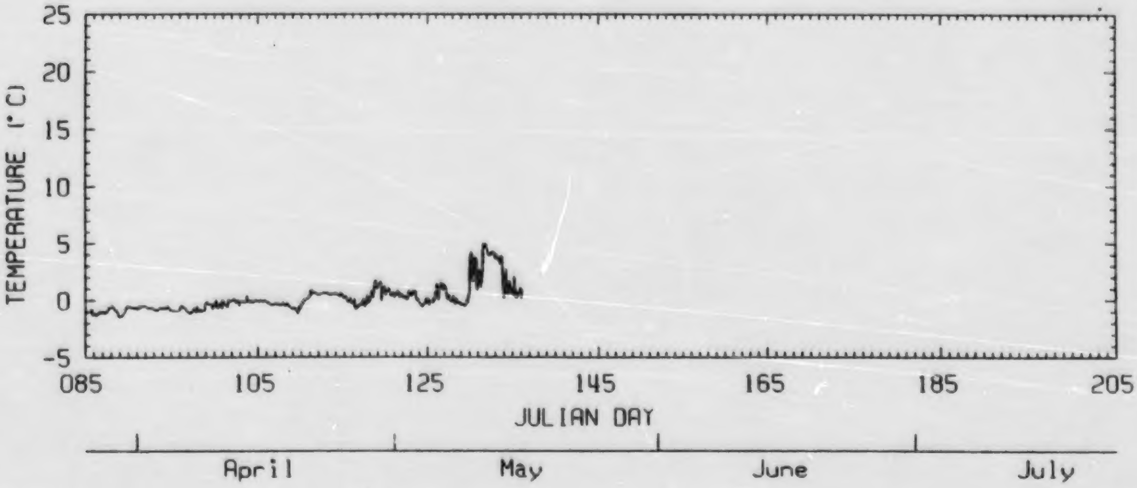
LATITUDE
LONGITUDE
STOCK COVE, BONAVISTA BA





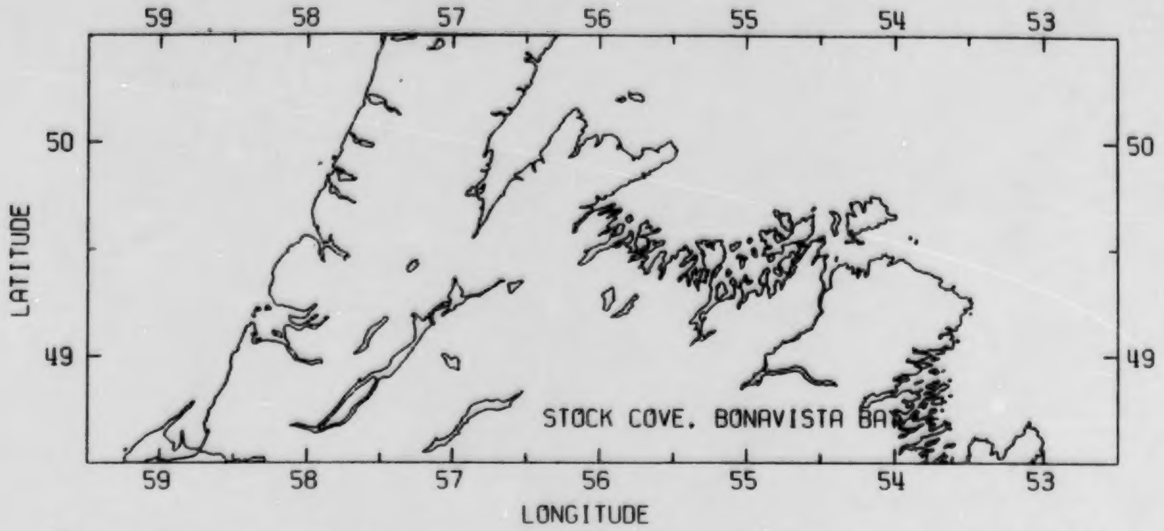
Start:26-NOV-1997 End:16-MAY-1998 Inst. S/N:6645

THERMOGRAPH DATA SUMMARY

STATION NAME:	STOCK COVE, BONAVISTA BAY
STATION NUMBER:	110
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006788
LATITUDE:	48.71° N
LONGITUDE:	53.76° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	26-NOV-1997 19:00 GMT
RECOVERY DATE/TIME:	16-MAY-1998 03:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	2.65	332	3.55	330	3.16	0.23	16.1	0.0	101
DEC-1997	0.20	357	3.60	337	2.19	0.89	67.8	0.0	744
JAN-1998	-1.40	24	1.80	1	-0.22	0.65	5.2	0.0	744
FEB-1998	-1.80	41	-0.35	45	-1.05	0.30	0.0	0.0	672
MAR-1998	-1.70	82	-0.40	87	-1.06	0.23	0.0	0.0	744
APR-1998	-1.20	109	1.80	118	-0.09	0.58	5.6	0.0	720
MAY-1998	-0.55	124	5.30	131	1.23	1.54	19.4	0.2	364
Total Period	-1.80	41	5.30	131	0.16	1.46	114.1	0.2	4089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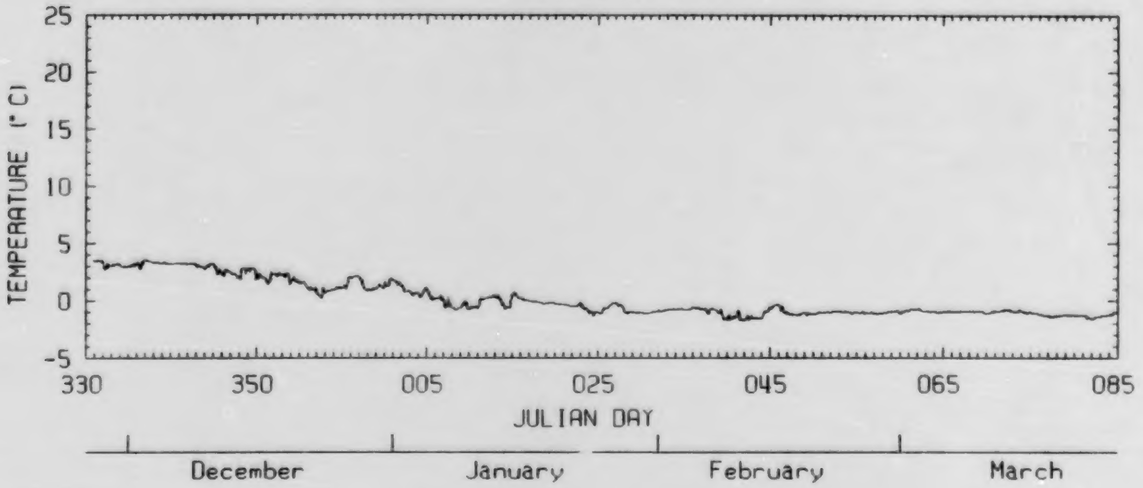
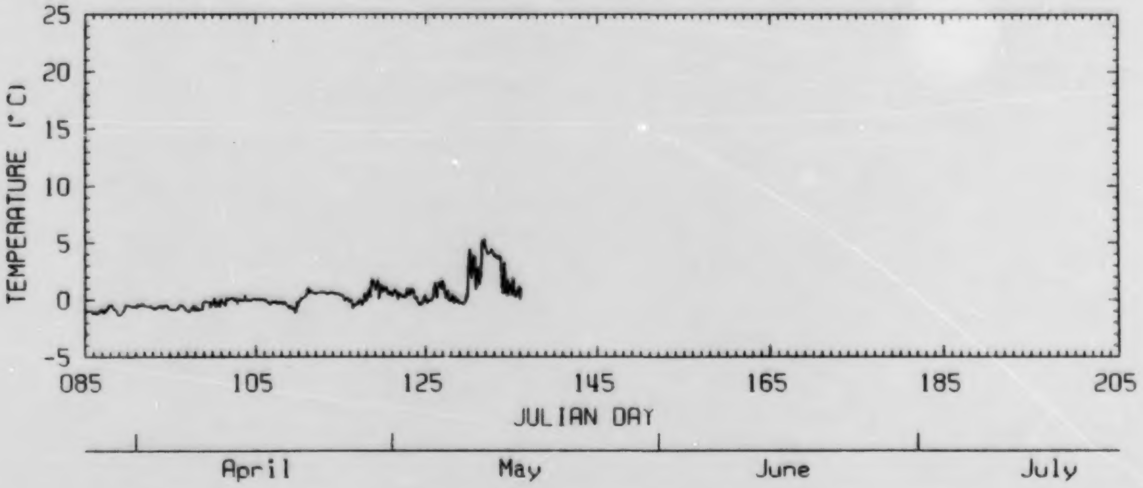
LATITUDE
LONGITUDE
STOCK COVE, BONAVISTA BAY





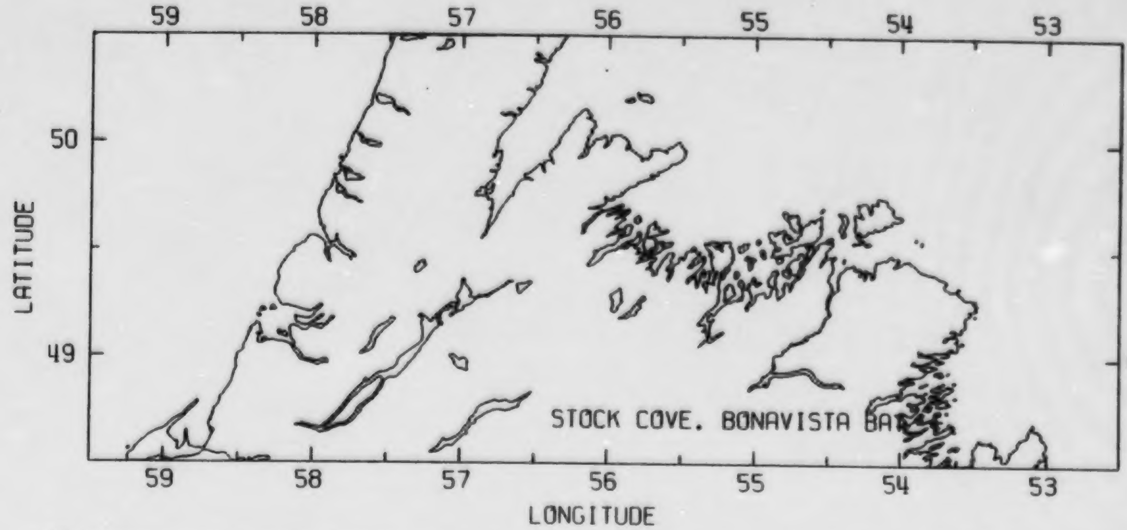
Start:26-NOV-1997 End:16-MAY-1998 Inst. S/N:6788

THERMOGRAPH DATA SUMMARY

STATION NAME:	STOCK COVE, BONAVISTA BAY
STATION NUMBER:	110
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008969
LATITUDE:	48.71° N
LONGITUDE:	53.76° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	19-MAY-1998 19:00 GMT
RECOVERY DATE/TIME:	8-SEP-1998 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	1.65	145	5.20	147	3.56	0.75	47.1	1.5	293
JUN-1998	3.40	156	12.55	178	6.39	2.48	191.6	71.9	720
JUL-1998	4.55	187	13.85	190	9.47	2.15	293.7	169.7	744
AUG-1998	4.60	215	16.35	229	13.48	2.83	417.9	293.9	744
SEP-1998	12.75	250	15.55	246	14.46	0.78	115.4	83.4	186
Total Period	1.65	145	16.35	229	9.46	4.22	1065.8	620.5	2687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LATITUDE
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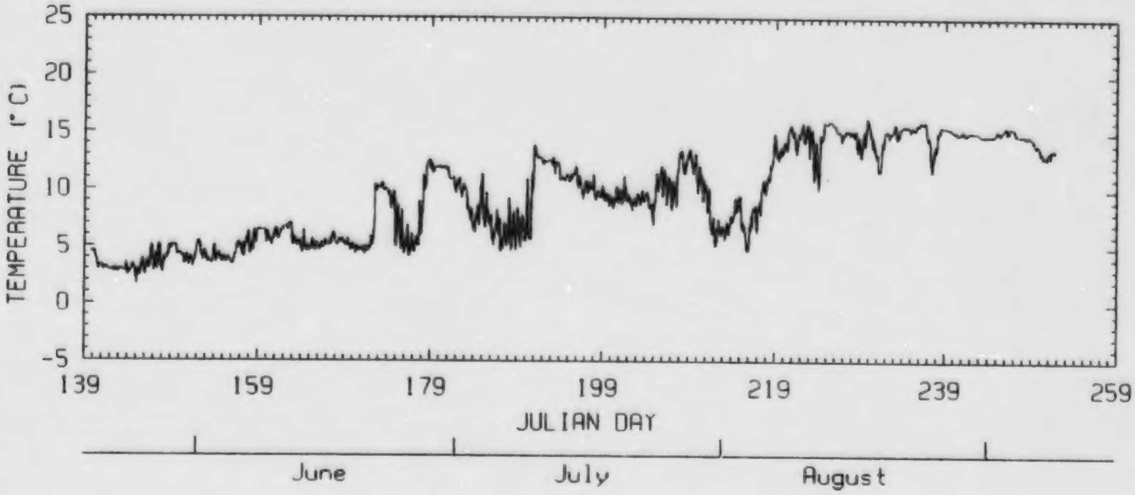
STOCK COVE. BONAVISTA BAY



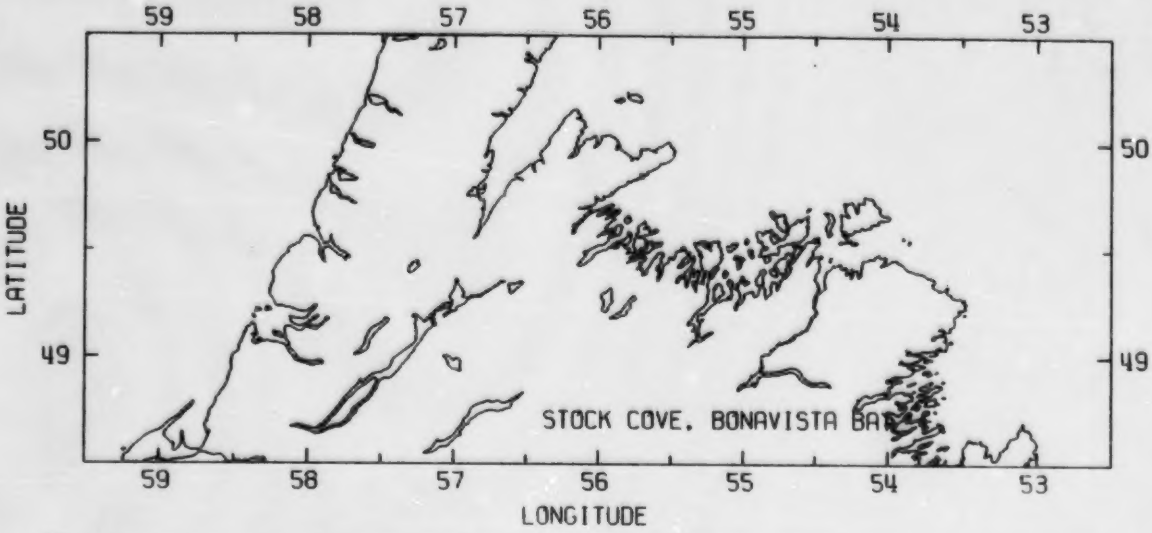
Start: 19-MAY-1998 End: 8-SEP-1998 Inst. S/N:8969

THERMOGRAPH DATA SUMMARY

STATION NAME:	STOCK COVE, BONAVISTA BAY
STATION NUMBER:	110
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008979
LATITUDE:	48.71° N
LONGITUDE:	53.76° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	19-MAY-1998 19:00 GMT
RECOVERY DATE/TIME:	8-SEP-1998 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	1.55	145	5.15	149	3.52	0.75	46.5	1.3	293
JUN-1998	3.30	156	12.50	178	6.33	2.47	189.9	70.4	720
JUL-1998	4.50	187	13.80	190	9.41	2.17	291.7	167.7	744
AUG-1998	4.50	215	16.30	229	13.48	2.82	417.8	293.8	744
SEP-1998	12.75	250	15.55	246	14.42	0.78	115.1	83.1	186
Total Period	1.55	145	16.30	229	9.41	4.23	1061.0	616.3	2687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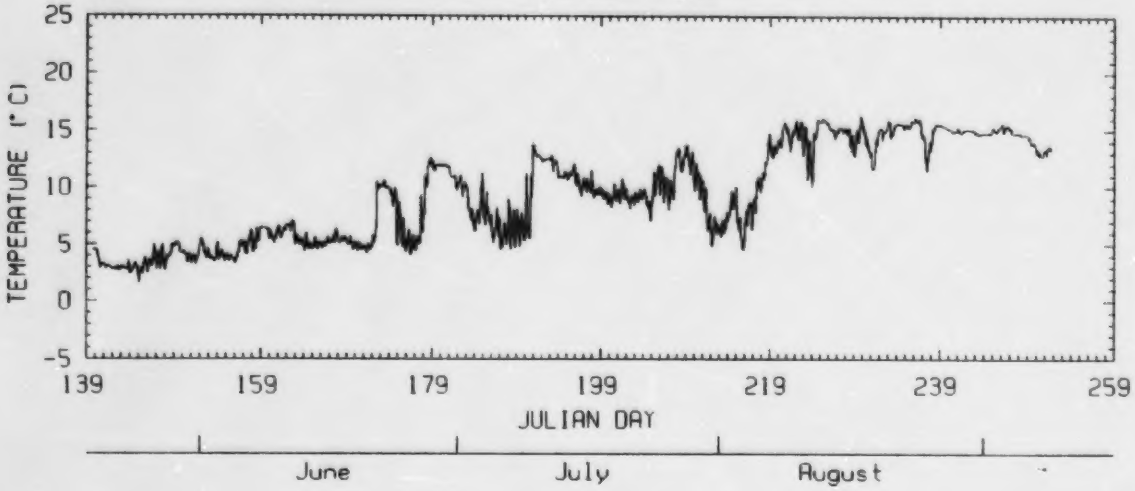
LATITUDE
STOCK COVE, BONAVISTA BAY
LONGITUDE



Start: 19-MAY-1998 End: 8-SEP-1998 Inst. S/N:8979

THERMOGRAPH DATA SUMMARY

STATION NAME: STOCK COVE, BONAVISTA BAY

STATION NUMBER: 110

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 007946

LATITUDE: 48.71° N

LONGITUDE: 53.76° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

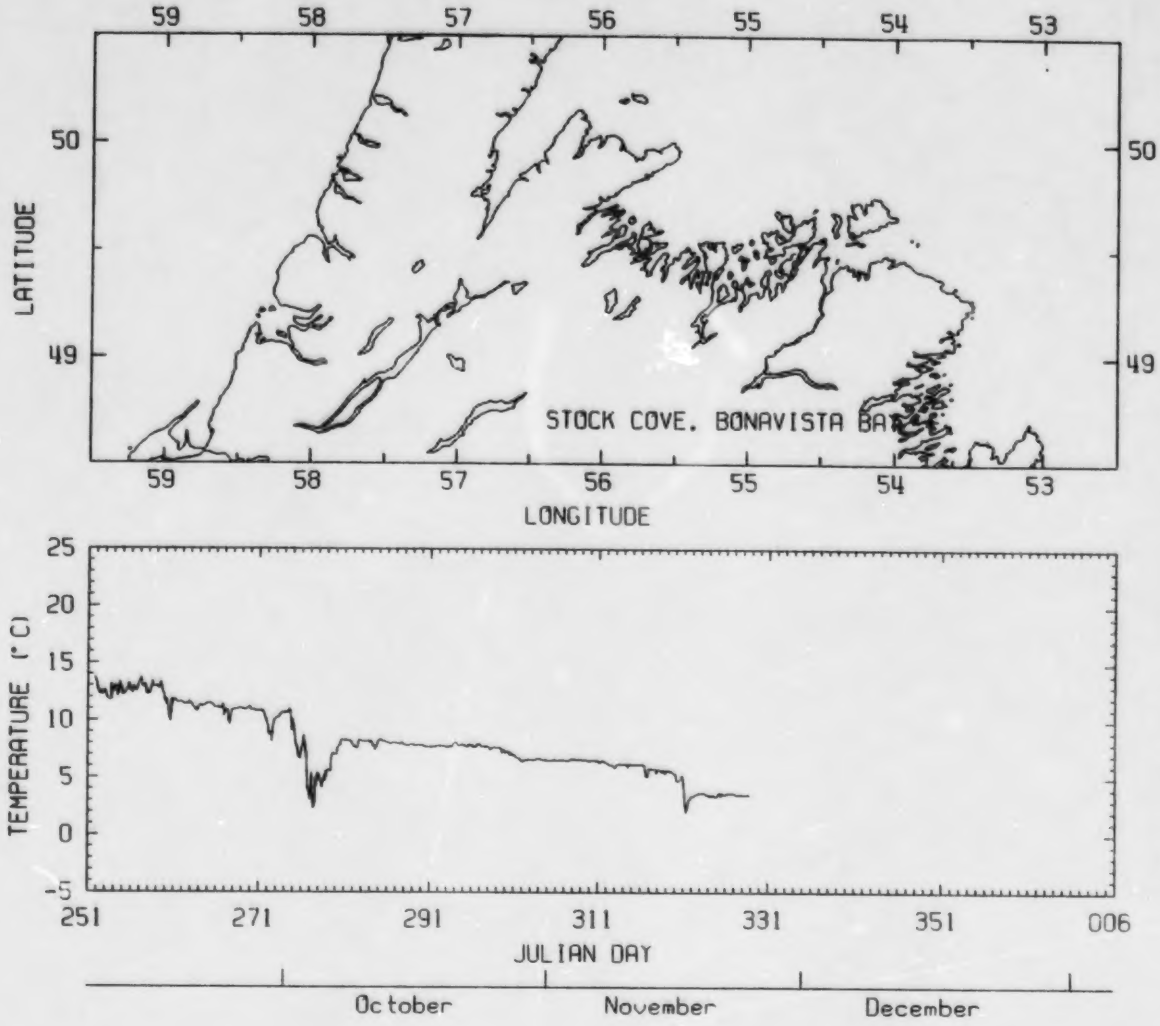
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 8-SEP-1998 18:00 GMT

RECOVERY DATE/TIME: 24-NOV-1998 18:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1998	8.10	272	13.70	251	11.55	1.03	267.1	175.1	534
OCT-1998	2.25	277	11.00	274	7.42	1.20	230.1	106.1	744
NOV-1998	1.95	321	6.65	307	5.23	1.31	125.1	33.4	571
Total Period	1.95	321	13.70	251	7.94	2.75	622.3	314.6	1849



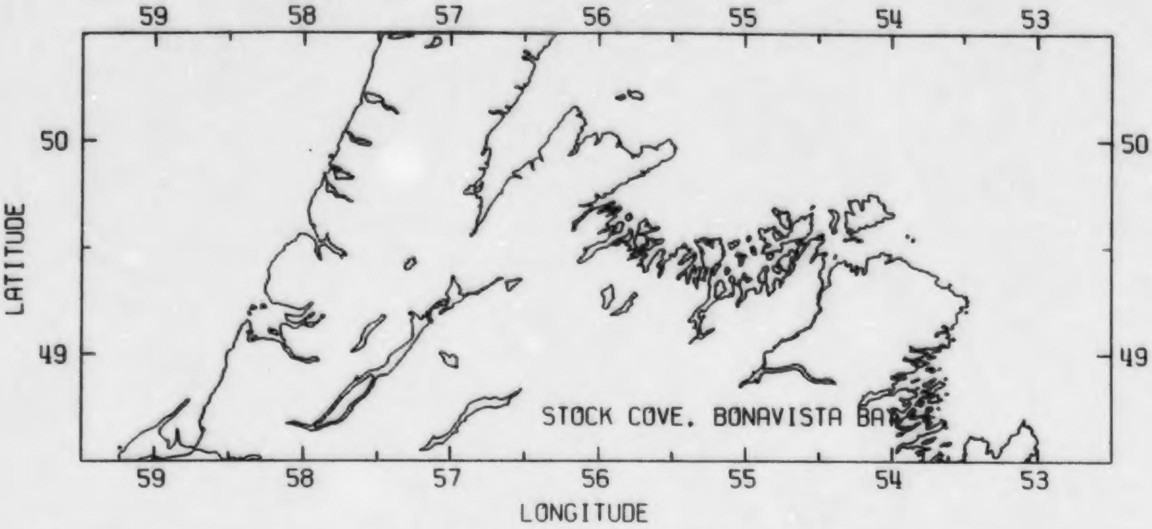
Start: 8-SEP-1998 End: 24-NOV-1998 Inst. S/N: 7946

THERMOGRAPH DATA SUMMARY

STATION NAME:	STOCK COVE, BONAVISTA BAY
STATION NUMBER:	110
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006788
LATITUDE:	48.71° N
LONGITUDE:	53.76° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	8-SEP-1998 18:00 GMT
RECOVERY DATE/TIME:	11-NOV-1998 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1998	8.10	272	13.65	251	11.51	1.03	266.4	174.4	534
OCT-1998	2.30	277	10.95	274	7.39	1.19	229.1	105.1	744
NOV-1998	5.80	313	6.65	307	6.33	0.20	69.6	25.6	258
Total Period	2.30	277	13.65	251	8.65	2.36	565.1	305.1	1536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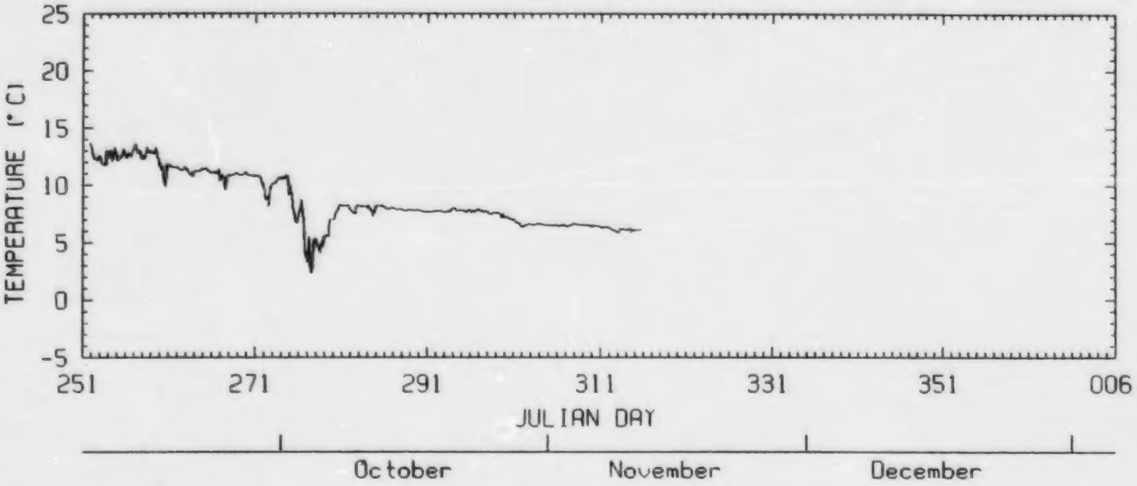
LATITUDE
LONGITUDE
STOCK COVE, BONAVISTA BAY



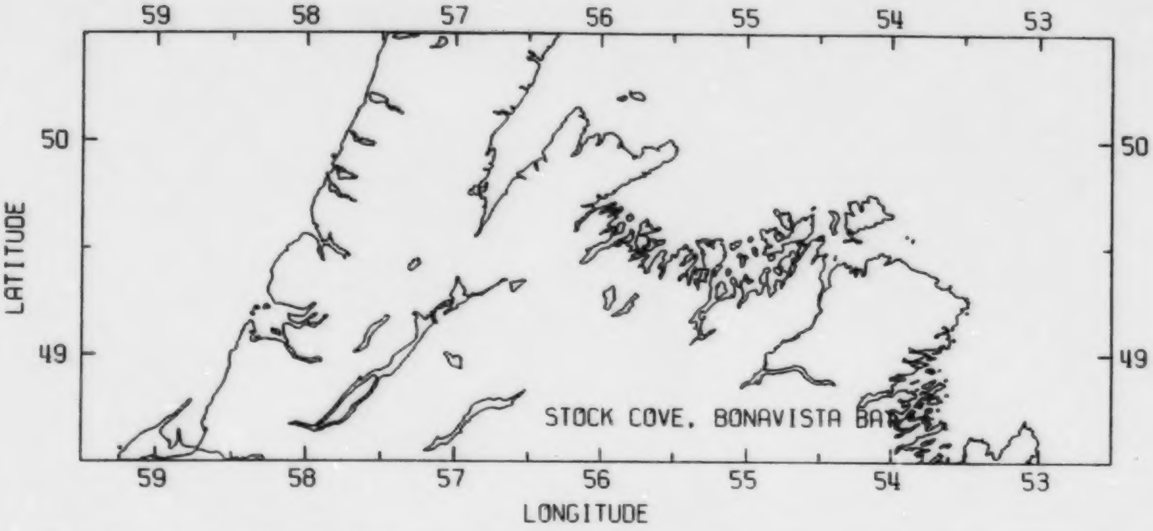
Start: 8-SEP-1998 End: 11-NOV-1998 Inst. S/N:6788

THERMOGRAPH DATA SUMMARY

STATION NAME: STOCK COVE, BONAVISTA BAY
STATION NUMBER: 110
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 007939
LATITUDE: 48.71° N
LONGITUDE: 53.76° W
INSTRUMENT DEPTH: 9 m
WATER DEPTH: 9 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 24-NOV-1998 18:00 GMT
RECOVERY DATE/TIME: 13-MAY-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1998	2.95	334	3.45	329	3.26	0.11	22.9	0.0	150
DEC-1998	0.15	360	3.20	335	1.27	0.78	39.3	0.0	744
JAN-1999	-1.20	31	0.75	1	-0.18	0.36	1.5	0.0	744
FEB-1999	-1.75	33	-0.30	48	-0.78	0.27	0.0	0.0	672
MAR-1999	-1.25	61	0.15	88	-0.72	0.28	0.0	0.0	744
APR-1999	-1.00	91	3.30	115	0.39	0.89	16.2	0.0	720
MAY-1999	0.10	132	2.05	128	1.40	0.33	18.1	0.0	306
Total Period	-1.75	33	3.45	329	0.23	1.15	97.9	0.0	4080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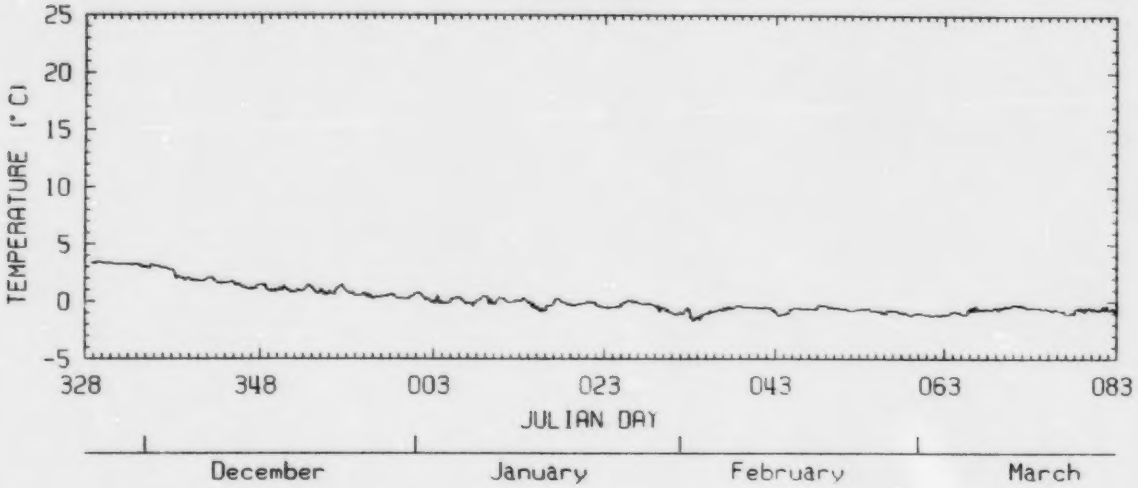
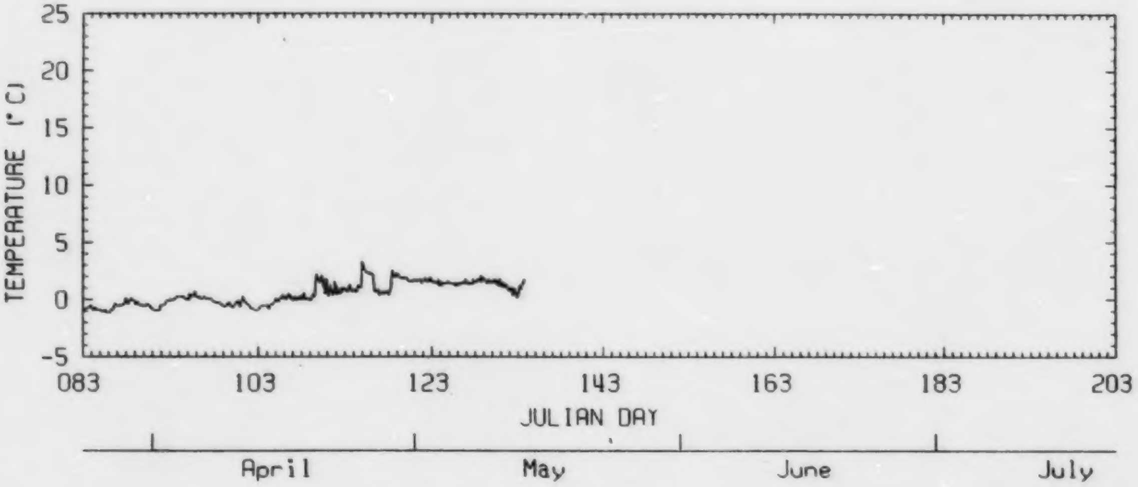
LATITUDE
LONGITUDE
STOCK COVE, BONAVISTA BAY





Start:24-NOV-1998 End:13-MAY-1999 Inst. S/N:7939

THERMOGRAPH DATA SUMMARY

STATION NAME: STOCK COVE, BONAVISTA BAY

STATION NUMBER: 110

INSTRUMENT TYPE: Minilog-T (Vemco)

INSTRUMENT S/N: 004353

LATITUDE: 48.71° N

LONGITUDE: 53.76° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

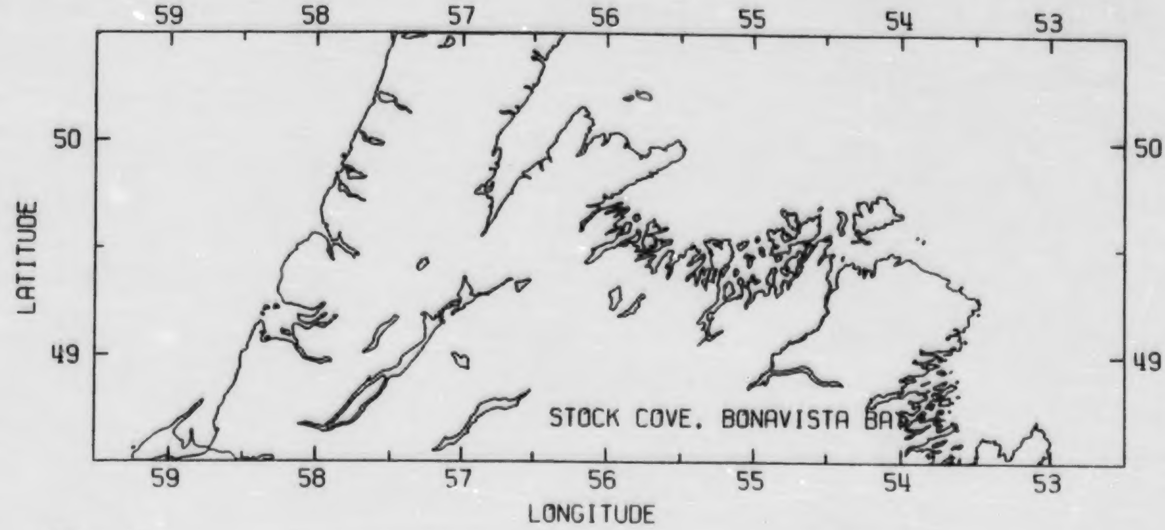
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 24-NOV-1998 18:00 GMT

RECOVERY DATE/TIME: 13-MAY-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1998	3.00	334	3.60	329	3.36	0.13	23.6	0.0	150
DEC-1998	0.30	360	3.40	335	1.36	0.77	42.1	0.0	744
JAN-1999	-1.10	31	0.80	1	-0.11	0.37	2.4	0.0	744
FEB-1999	-1.70	34	-0.20	48	-0.70	0.27	0.0	0.0	672
MAR-1999	-1.20	61	0.30	87	-0.64	0.28	0.0	0.0	744
APR-1999	-0.90	91	3.40	114	0.50	0.90	18.6	0.0	720
MAY-1999	0.30	132	2.00	122	1.49	0.30	19.3	0.0	301
Total Period	-1.70	34	3.60	329	0.32	1.15	105.9	0.0	4075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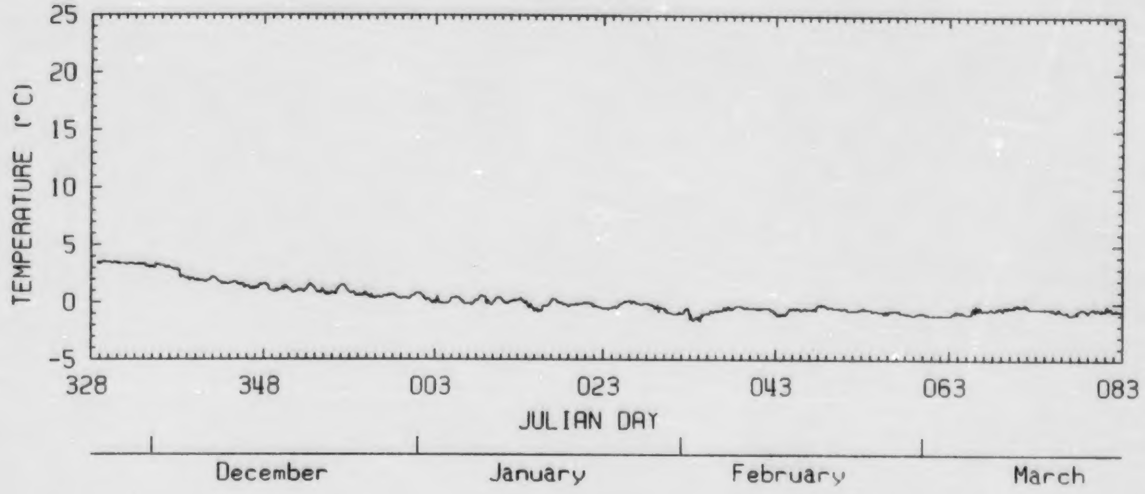
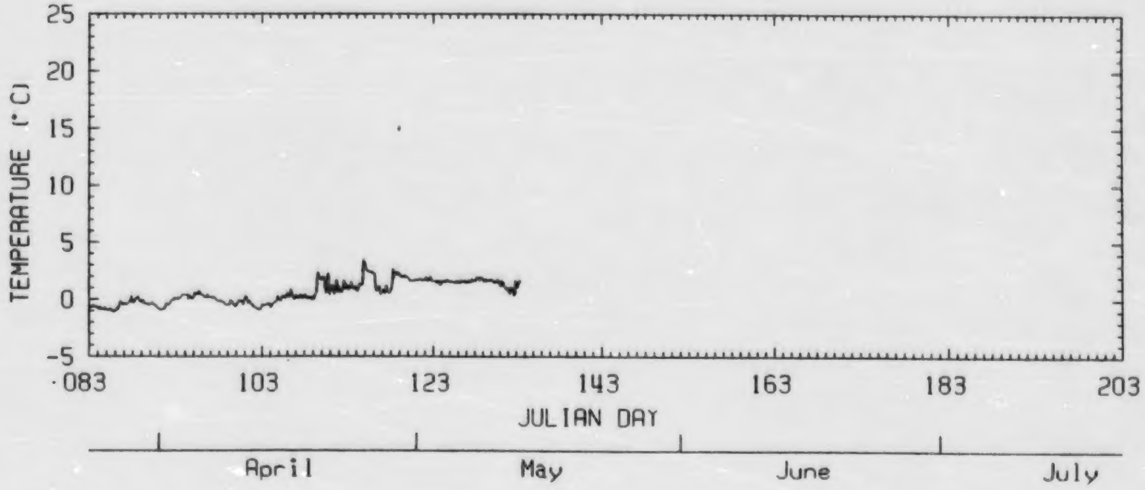
LATITUDE
LONGITUDE
STOCK COVE, BONAVISTA BAY





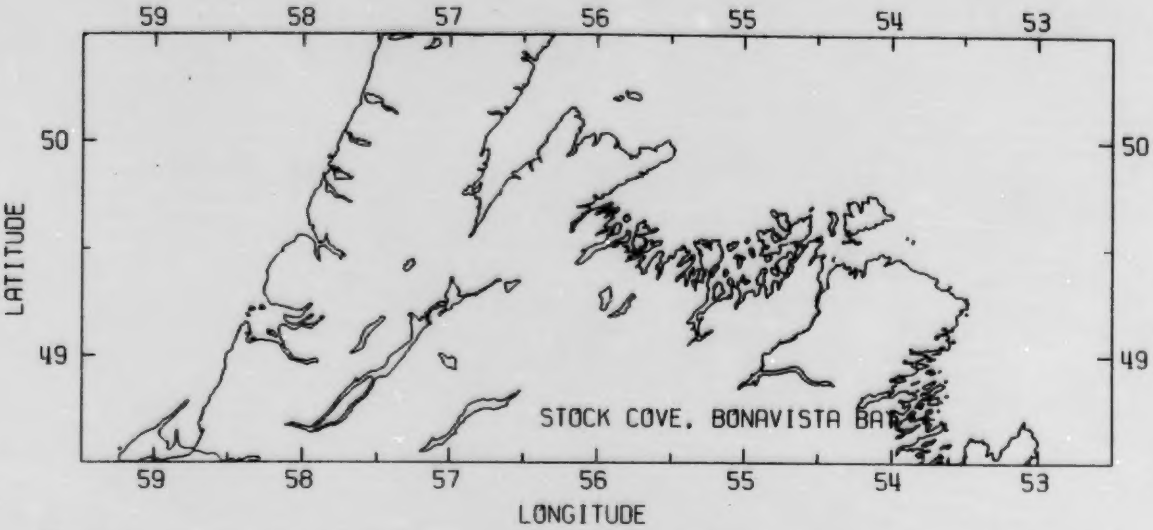
Start:24-NOV-1998 End:13-MAY-1999 Inst. S/N:4353

THERMOGRAPH DATA SUMMARY

STATION NAME: STOCK COVE, BONAVISTA BAY
STATION NUMBER: 110
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 003260
LATITUDE: 48.71° N
LONGITUDE: 53.76° W
INSTRUMENT DEPTH: 9 m
WATER DEPTH: 9 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 13-MAY-1999 18:00 GMT
RECOVERY DATE/TIME: 18-AUG-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	0.10	151	6.45	145	3.42	1.34	63.6	4.9	438
JUN-1999	1.40	158	12.45	179	7.56	2.05	226.7	106.7	720
JUL-1999	4.05	184	15.50	212	11.21	2.00	347.6	223.6	744
AUG-1999	2.35	222	15.70	216	10.40	3.06	186.9	114.9	426
Total Period	0.10	151	15.70	216	8.47	3.57	824.9	450.1	2328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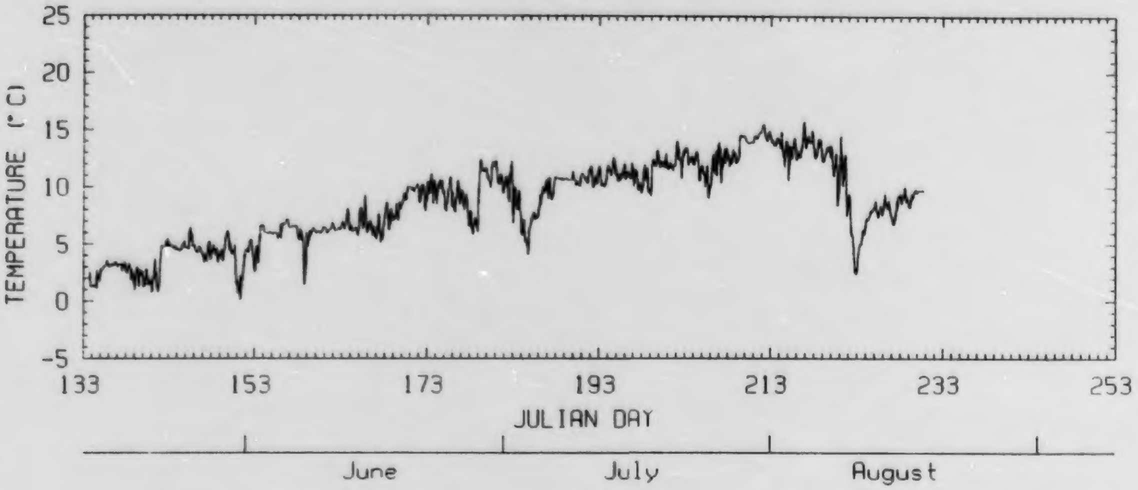
LATITUDE
STOCK COVE, BONAVISTA BAY
LONGITUDE



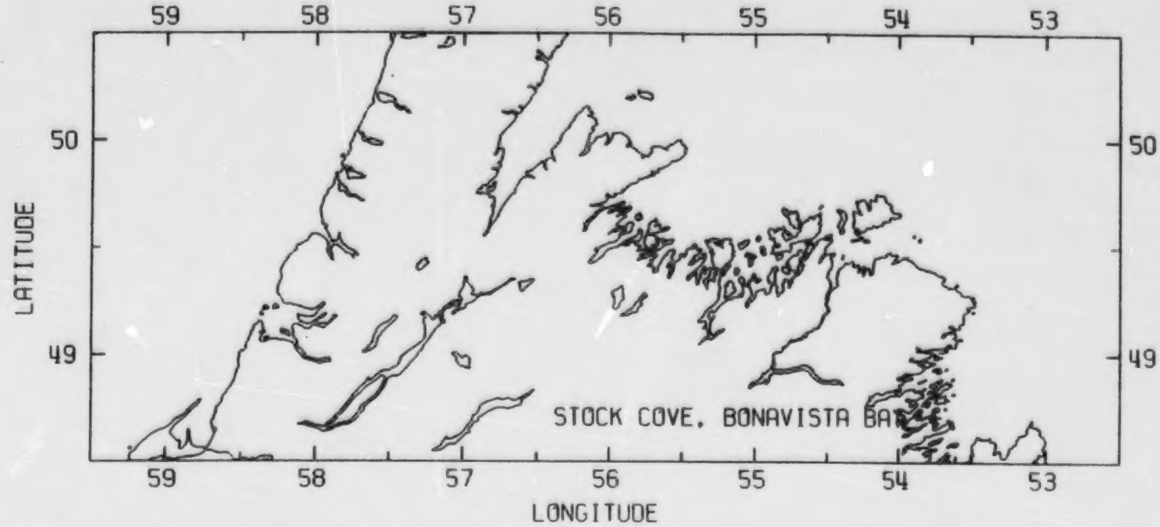
Start: 13-MAY-1999 End: 18-AUG-1999 Inst. S/N:3260

THERMOGRAPH DATA SUMMARY

STATION NAME:	STOCK COVE, BONAVISTA BAY
STATION NUMBER:	110
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006437
LATITUDE:	48.71° N
LONGITUDE:	53.76° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	13-MAY-1999 18:00 GMT
RECOVERY DATE/TIME:	18-AUG-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	0.20	151	6.20	145	3.48	1.36	64.7	5.6	438
JUN-1999	1.60	158	12.70	179	7.64	2.03	229.1	109.1	720
JUL-1999	4.10	184	15.50	212	11.29	2.02	349.9	225.9	744
AUG-1999	2.30	223	15.90	216	10.45	3.01	187.9	115.9	426
Total Period	0.20	151	15.90	216	8.54	3.57	831.6	456.5	2328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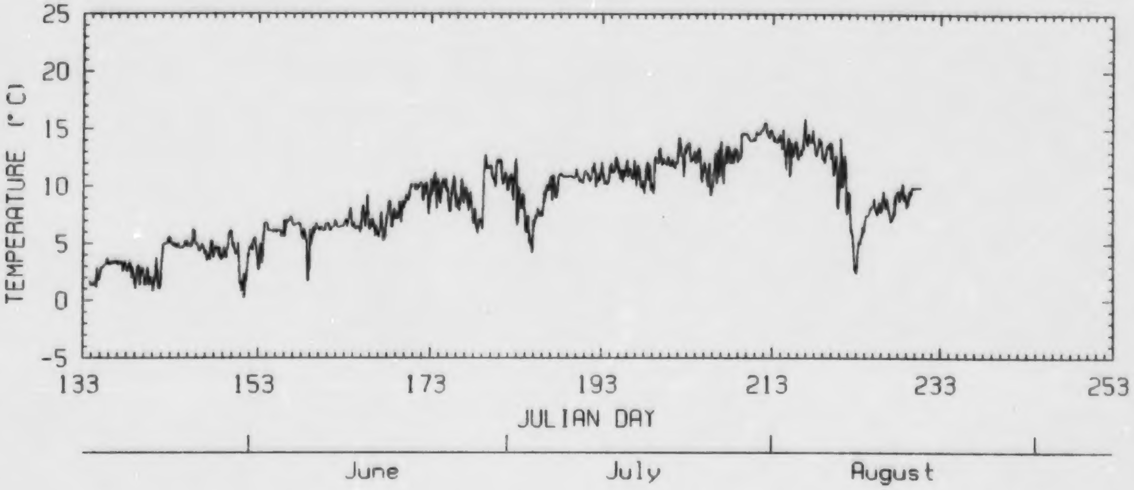
LATITUDE
LONGITUDE
STOCK COVE, BONAVISTA BAY



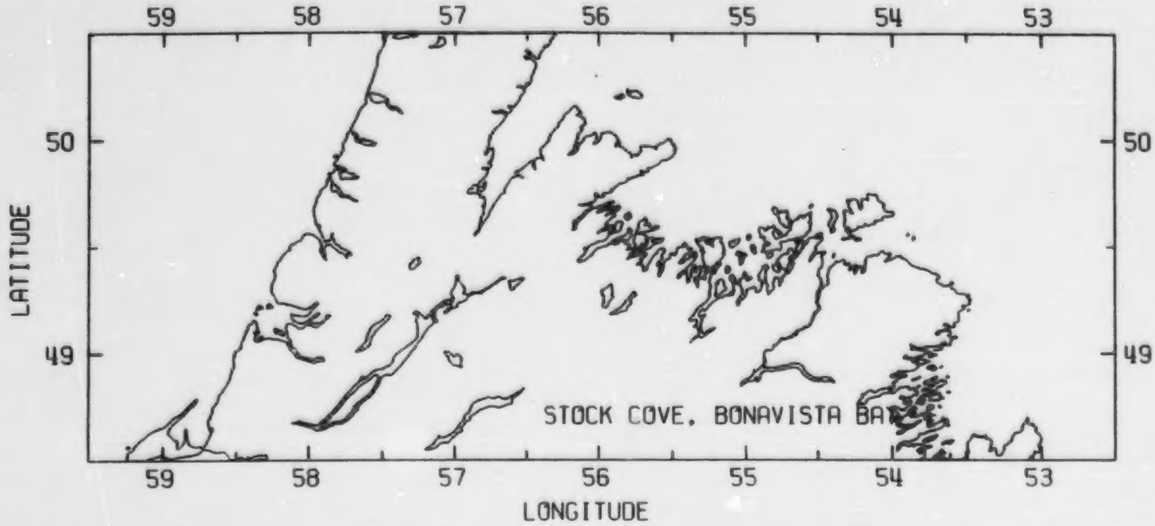
Start: 13-MAY-1999 End: 18-AUG-1999 Inst. S/N:6437

THERMOGRAPH DATA SUMMARY

STATION NAME:	STOCK COVE, BONAVISTA BAY
STATION NUMBER:	110
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005458
LATITUDE:	48.71° N
LONGITUDE:	53.76° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	18-AUG-1999 18:00 GMT
RECOVERY DATE/TIME:	10-NOV-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	9.40	231	14.30	243	11.62	1.12	161.1	105.1	318
SEP-1999	5.75	267	15.65	246	12.87	1.72	386.2	266.2	720
OCT-1999	1.60	289	11.20	278	7.76	2.61	240.4	116.4	744
NOV-1999	4.30	309	5.00	305	4.68	0.13	46.7	6.7	233
Total Period	1.60	289	15.65	246	9.84	3.50	834.5	494.5	2015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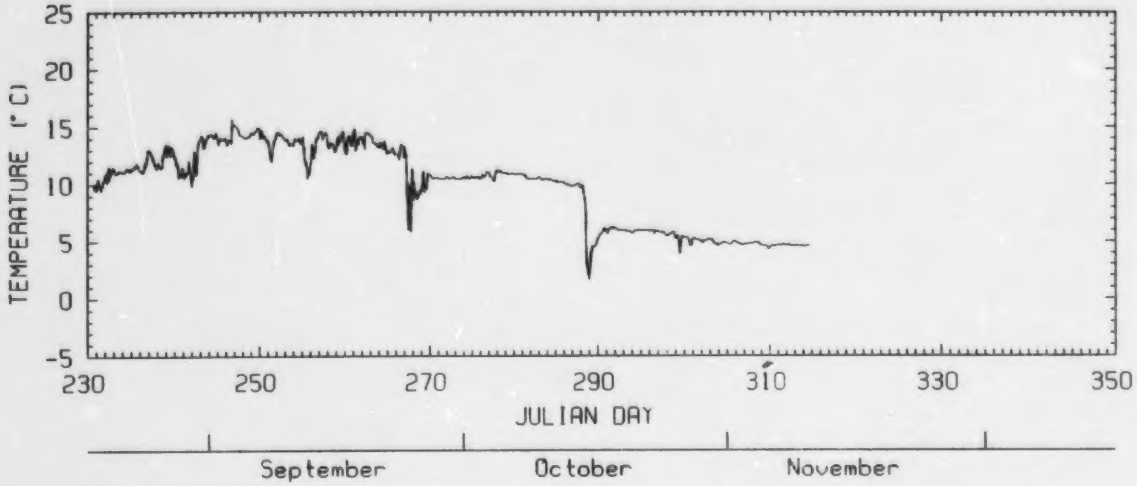
LATITUDE
STOCK COVE, BONAVISTA BAY
LONGITUDE



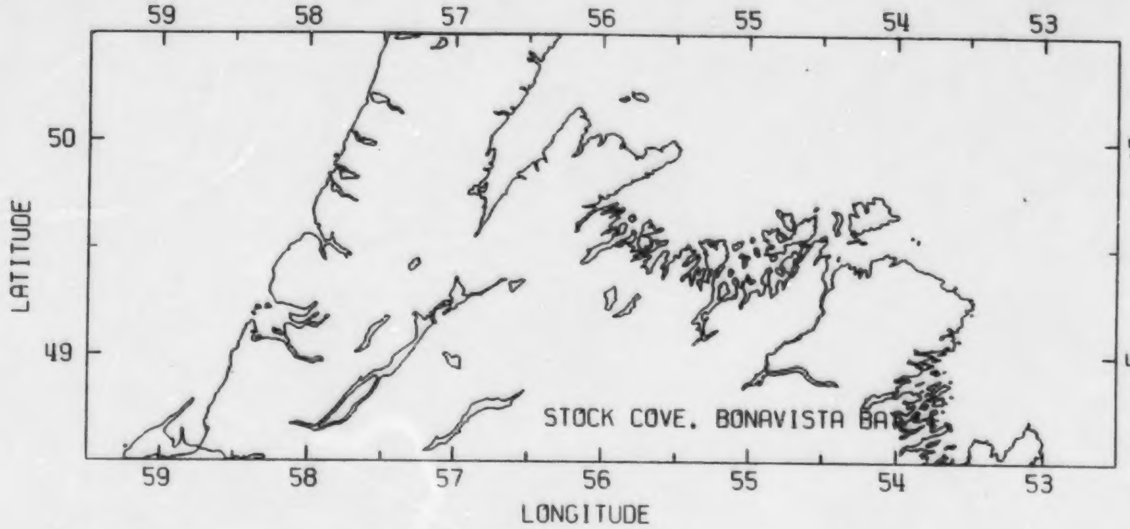
Start: 18-AUG-1999   End: 10-NOV-1999   Inst. S/N:5458

THERMOGRAPH DATA SUMMARY

STATION NAME:	STOCK COVE, BONAVISTA BAY
STATION NUMBER:	110
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005475
LATITUDE:	48.71° N
LONGITUDE:	53.76° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	18-AUG-1999 18:00 GMT
RECOVERY DATE/TIME:	10-NOV-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	9.45	231	14.30	243	11.65	1.12	161.5	105.5	318
SEP-1999	6.15	267	15.65	246	12.90	1.69	387.0	267.0	720
OCT-1999	2.10	288	11.25	278	7.81	2.59	242.0	118.0	744
NOV-1999	4.40	309	5.05	305	4.75	0.12	47.5	7.5	233
Total Period	2.10	288	15.65	246	9.88	3.47	838.1	498.1	2015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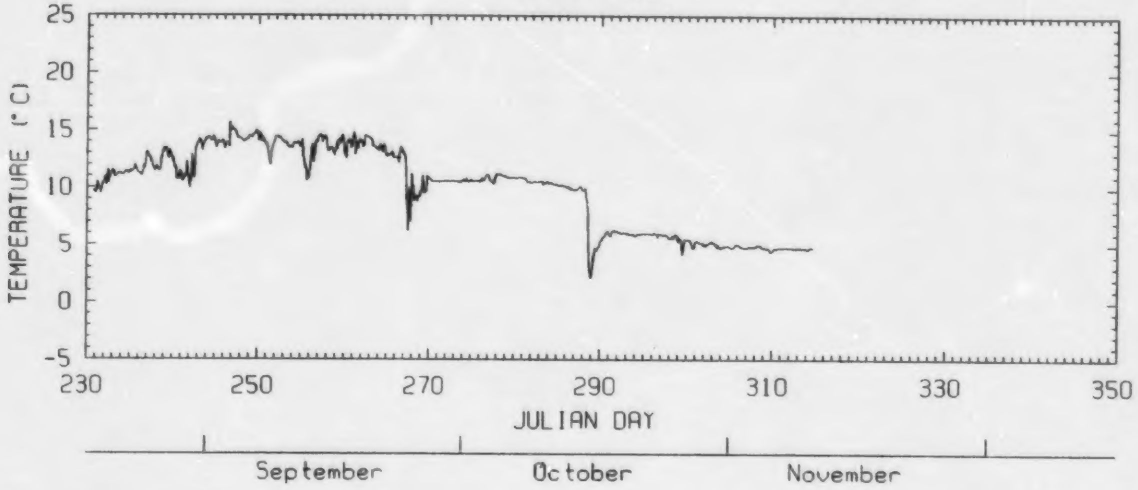
LATITUDE
STOCK COVE. BONAVISTA BAY
LONGITUDE



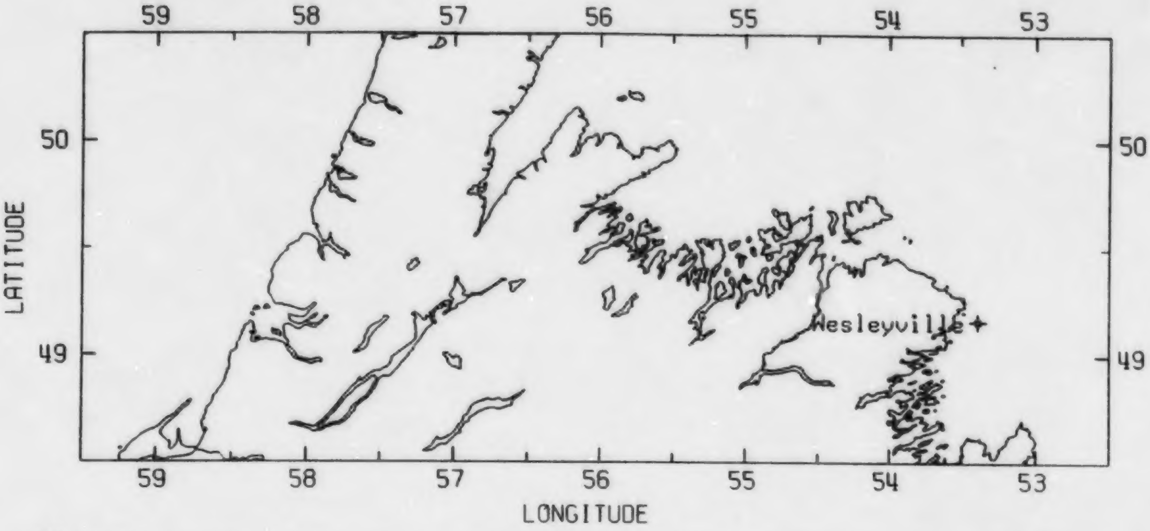
Start: 18-AUG-1999   End: 10-NOV-1999   Inst. S/N:5475

THERMOGRAPH DATA SUMMARY

STATION NAME:	WESLEYVILLE
STATION NUMBER:	260
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006645
LATITUDE:	49.16° N
LONGITUDE:	53.39° W
INSTRUMENT DEPTH:	25 m
WATER DEPTH:	25 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	2-AUG-1999 15:00 GMT
RECOVERY DATE/TIME:	7-SEP-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	0.30	222	8.30	229	3.53	1.43	104.7	7.7	705
SEP-1999	1.45	248	10.65	247	3.85	1.69	26.6	3.3	158
Total Period	0.30	222	10.65	247	3.59	1.49	131.3	11.0	863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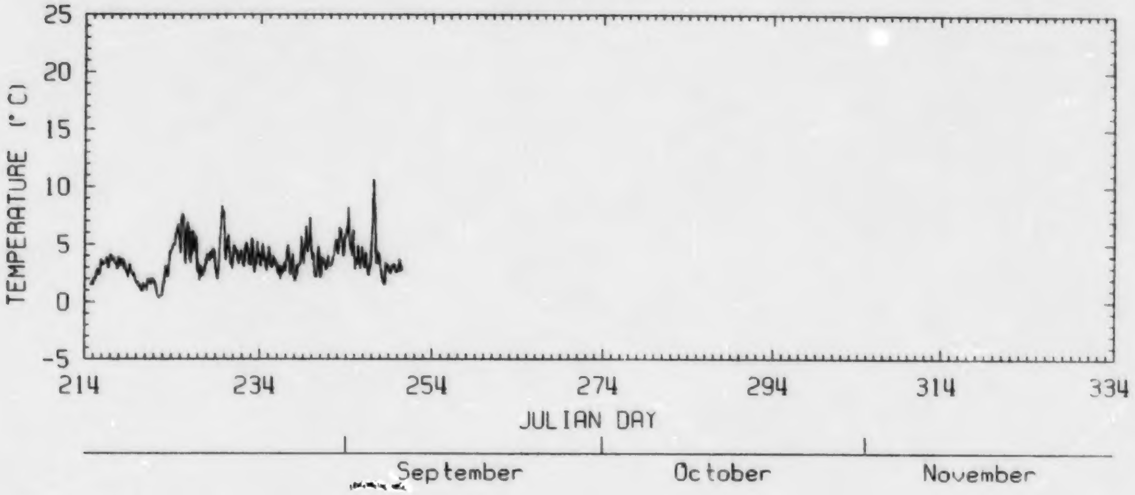


Start: 2-AUG-1999 End: 7-SEP-1999 Inst. S/N:6645

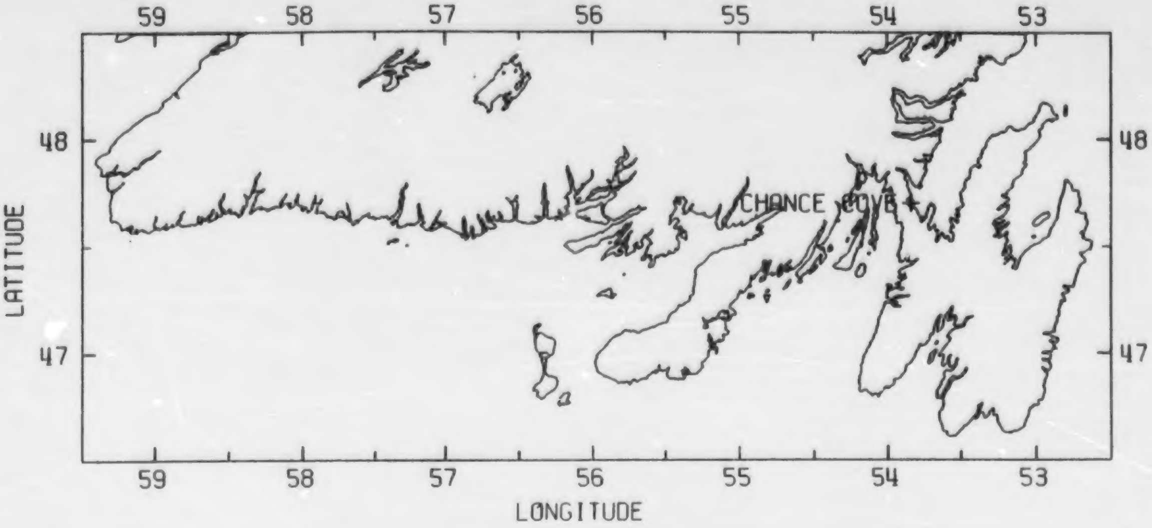
Appendix 8. Time Series Plots and Monthly Statistics from Unit Area 3Lb.

THERMOGRAPH DATA SUMMARY

STATION NAME:	CHANCE COVE
STATION NUMBER:	149
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	003287
LATITUDE:	47.70° N
LONGITUDE:	53.84° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	27 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	12-JUN-1998 10:00 GMT
RECOVERY DATE/TIME:	26-SEP-1998 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	2.40	178	10.95	181	7.04	2.24	133.5	57.6	446
JUL-1998	0.60	207	11.10	193	5.71	3.41	177.1	73.8	744
AUG-1998	0.10	216	13.85	242	5.53	4.04	171.5	72.5	744
SEP-1998	5.20	249	14.85	246	11.88	1.69	308.6	204.6	617
Total Period	0.10	216	14.85	246	7.39	4.06	790.7	408.5	2551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LATITUDE
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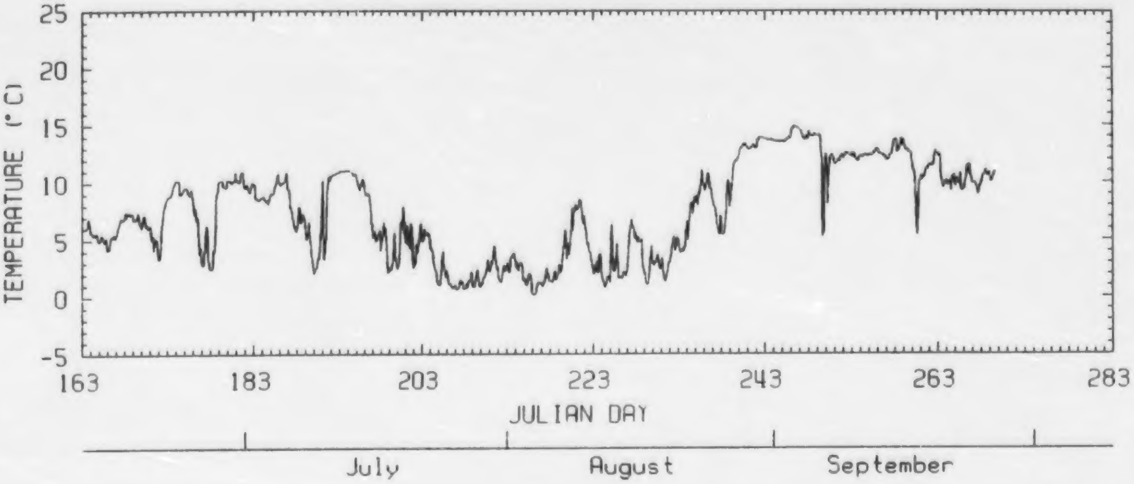
CHANCE COVE



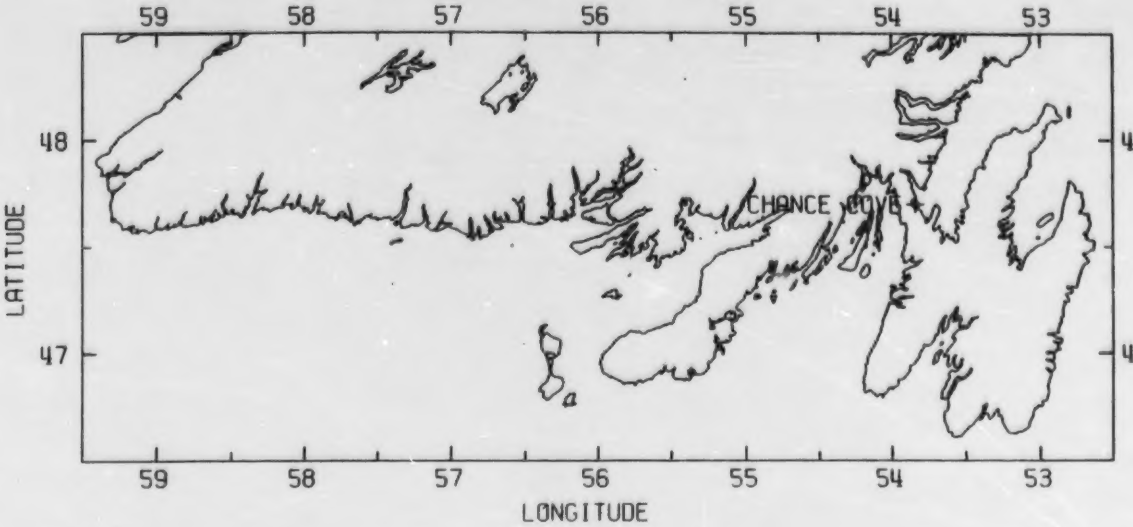
Start: 12-JUN-1998 End: 26-SEP-1998 Inst. S/N:3287

THERMOGRAPH DATA SUMMARY

STATION NAME:	CHANCE COVE
STATION NUMBER:	149
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006597
LATITUDE:	47.70° N
LONGITUDE:	53.84° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	32 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	7-MAY-1999 11:00 GMT
RECOVERY DATE/TIME:	25-SEP-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	-0.55	151	5.95	146	2.37	1.76	59.0	4.2	589
JUN-1999	-0.80	159	10.25	176	4.67	2.62	140.5	40.3	720
JUL-1999	1.10	184	13.95	209	8.07	2.78	250.2	127.0	744
AUG-1999	2.35	223	13.20	213	6.80	2.72	210.8	90.1	744
SEP-1999	0.65	268	13.55	267	9.37	3.58	232.2	133.9	593
Total Period	-0.80	159	13.95	209	6.31	3.63	892.6	395.4	3390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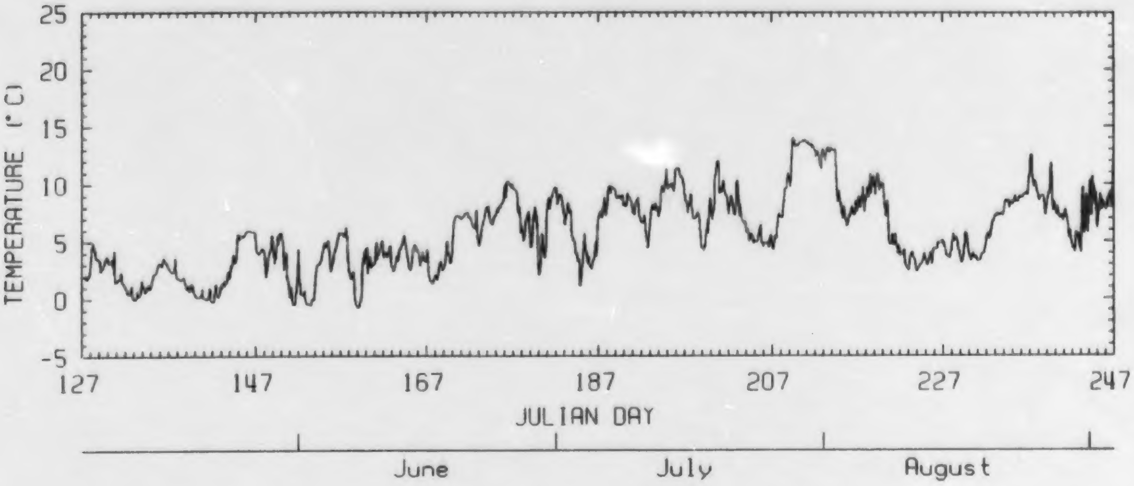
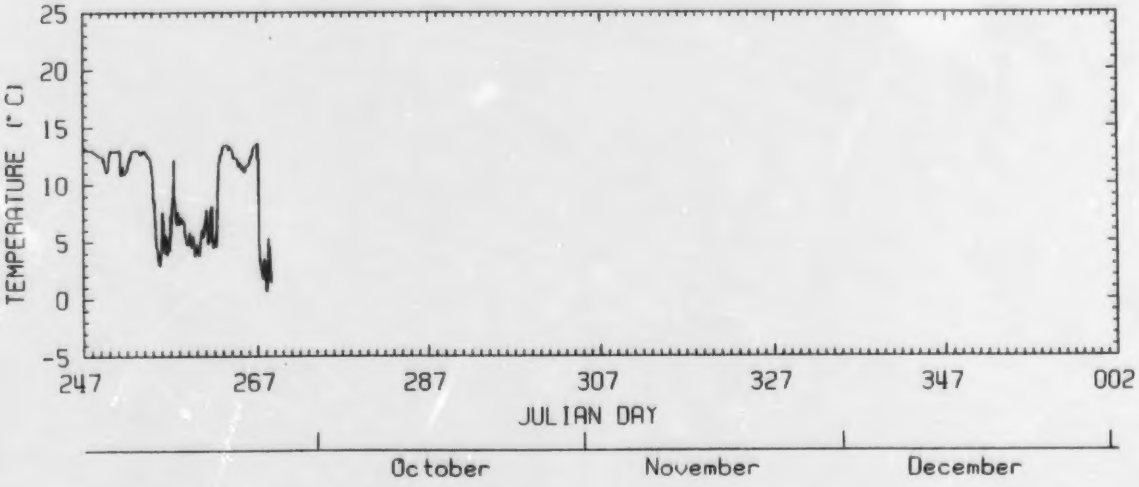
LATITUDE
LONGITUDE
CHANCE COVE





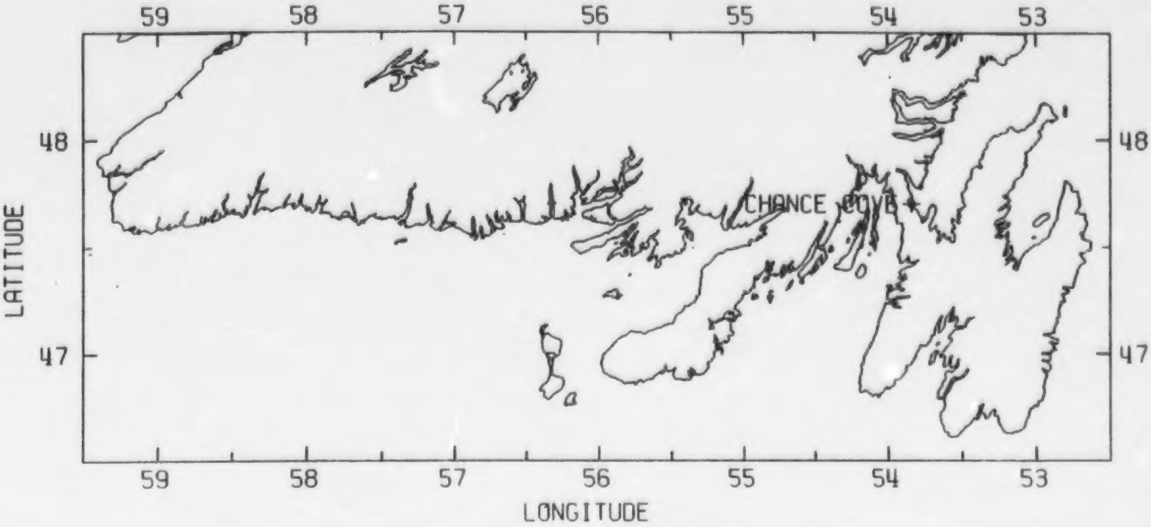
Start: 7-MAY-1999 End:25-SEP-1999 Inst. S/N:6597

THERMOGRAPH DATA SUMMARY

STATION NAME:	CHANCE COVE
STATION NUMBER:	149
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	003864
LATITUDE:	47.70° N
LONGITUDE:	53.84° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	32 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	7-MAY-1999 11:00 GMT
RECOVERY DATE/TIME:	25-SEP-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	-0.40	151	6.00	144	2.48	1.76	61.7	4.7	589
JUN-1999	-0.70	159	10.30	176	4.83	2.62	144.9	43.1	720
JUL-1999	1.20	184	14.10	209	8.25	2.79	255.9	132.3	744
AUG-1999	2.40	223	13.30	213	7.00	2.74	217.1	95.5	744
SEP-1999	0.90	268	13.80	267	9.59	3.56	237.7	139.2	593
Total Period	-0.70	159	14.10	209	6.48	3.66	917.3	414.6	3390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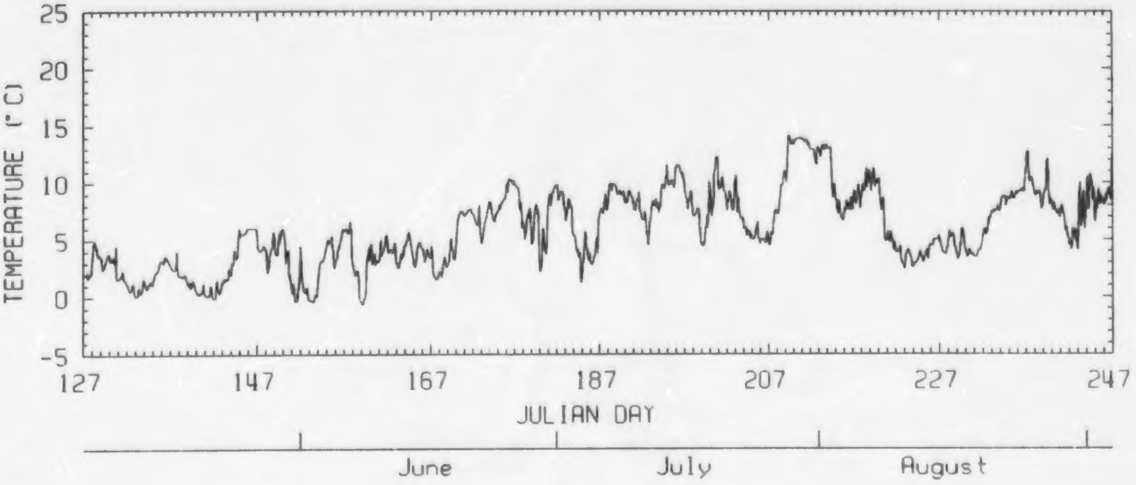
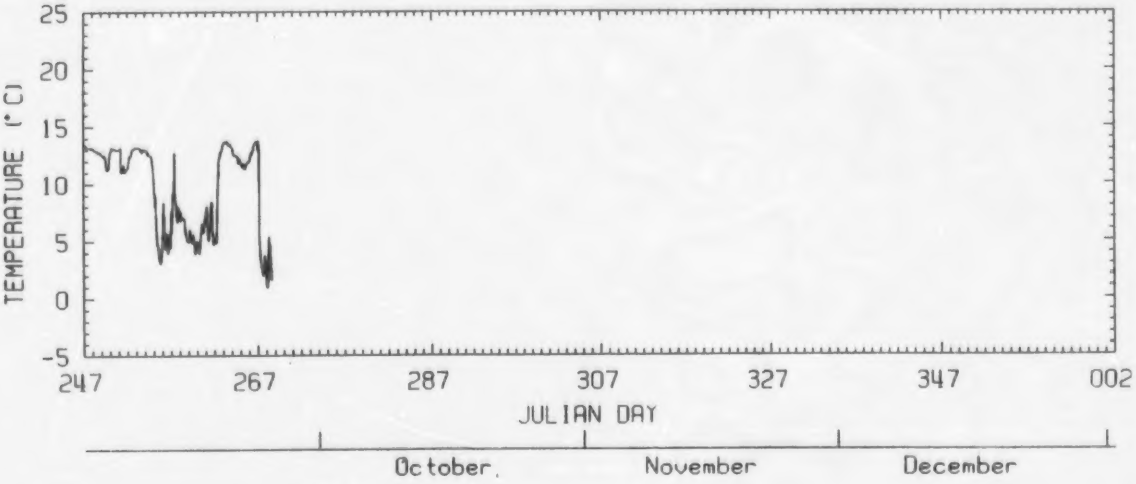




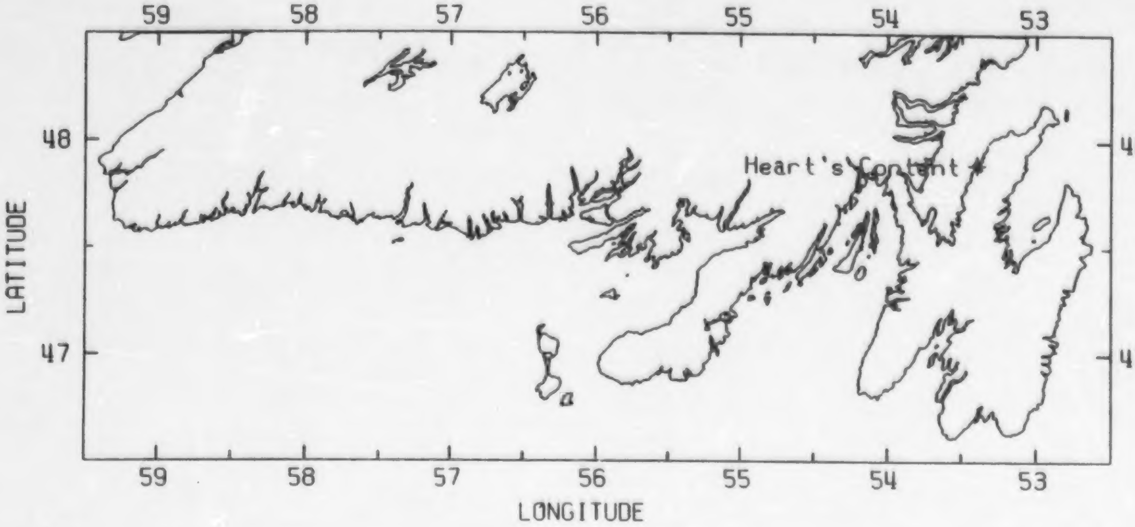
Start: 7-MAY-1999 End:25-SEP-1999 Inst. S/N:3864

THERMOGRAPH DATA SUMMARY

STATION NAME:	Heart's Content
STATION NUMBER:	206
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006431
LATITUDE:	47.89° N
LONGITUDE:	53.40° W
INSTRUMENT DEPTH:	37 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	22-JUL-1998 14:00 GMT
RECOVERY DATE/TIME:	13-OCT-1998 23:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	-0.60	206	0.50	204	-0.24	0.22	0.1	0.0	226
AUG-1998	-0.40	217	8.90	241	1.09	1.98	34.9	7.1	744
SEP-1998	0.70	247	13.50	260	8.30	3.31	248.9	132.4	720
OCT-1998	-1.00	280	12.10	275	4.39	3.95	58.1	22.1	312
Total Period	-1.00	280	13.50	260	4.05	4.43	342.1	161.6	2002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Heart's Content
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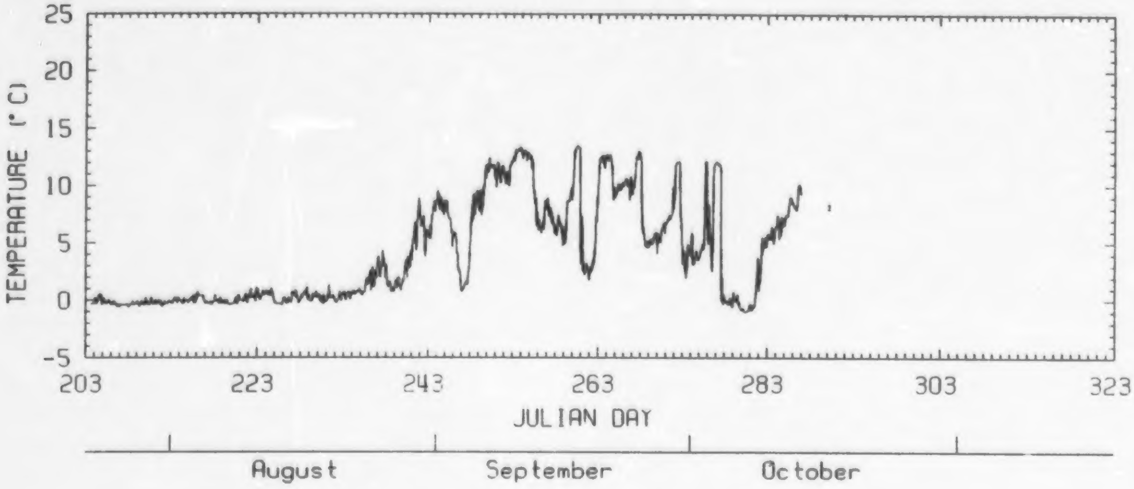


Start: 22-JUL-1998 End: 13-OCT-1998 Inst. S/N:6431

THERMOGRAPH DATA SUMMARY

STATION NAME: HOPEALL

STATION NUMBER: 262

INSTRUMENT TYPE: Minilog-T (Vemco)

INSTRUMENT S/N: 006247

LATITUDE: 47.65° N

LONGITUDE: 53.57° W

INSTRUMENT DEPTH: 65 m

WATER DEPTH: 66 m

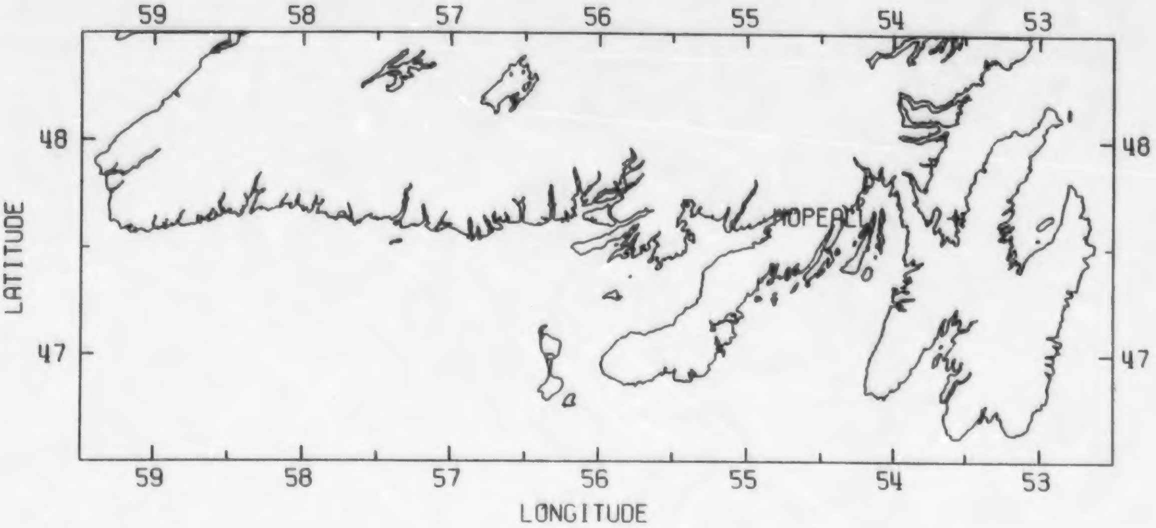
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 27-JUL-1999 22:00 GMT

RECOVERY DATE/TIME: 22-SEP-1999 18:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	0.00	212	4.00	210	2.11	1.15	10.1	0.0	98
AUG-1999	-0.60	225	2.20	234	0.65	0.66	21.3	0.0	744
SEP-1999	-0.30	255	2.00	247	0.67	0.58	14.8	0.0	523
Total Period	-0.60	225	4.00	210	0.76	0.78	46.3	0.0	1365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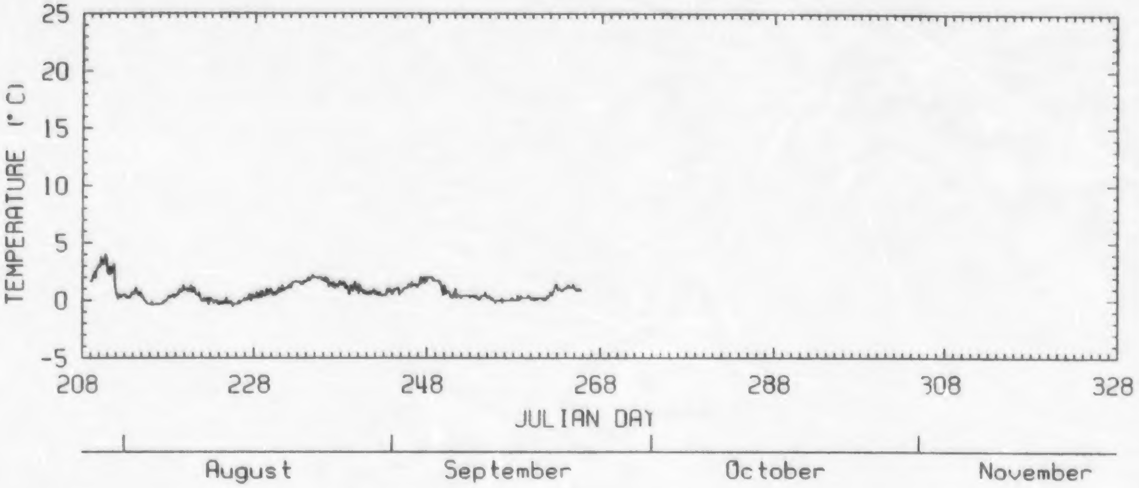


Start: 27-JUL-1999 End: 22-SEP-1999 Inst. S/N:6247

THERMOGRAPH DATA SUMMARY

STATION NAME: OLD BONAVENTURE

STATION NUMBER: 100

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 008AOB

LATITUDE: 48.28° N

LONGITUDE: 53.42° W

INSTRUMENT DEPTH: 10 m

WATER DEPTH: 40 m

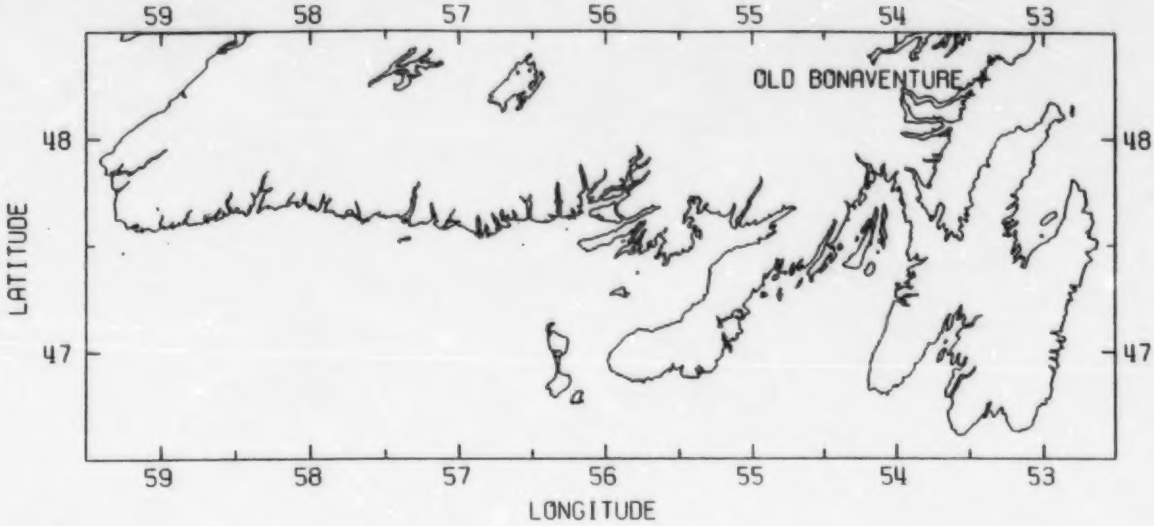
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 18-JUN-1999 12:00 GMT

RECOVERY DATE/TIME: 6-NOV-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	4.55	179	10.05	176	7.78	1.17	100.2	48.2	300
JUL-1999	3.20	199	13.80	209	8.47	2.42	262.7	138.7	744
AUG-1999	1.40	227	13.20	237	6.57	2.79	203.7	83.5	744
SEP-1999	0.70	267	13.25	266	9.59	2.61	287.7	167.7	720
OCT-1999	-0.15	289	10.65	279	7.62	2.53	236.3	115.5	744
NOV-1999	3.45	310	4.45	305	4.20	0.23	25.1	1.4	137
Total Period	-0.15	289	13.80	209	7.87	2.76	1115.7	555.0	3389


OLD BONAVENTURE
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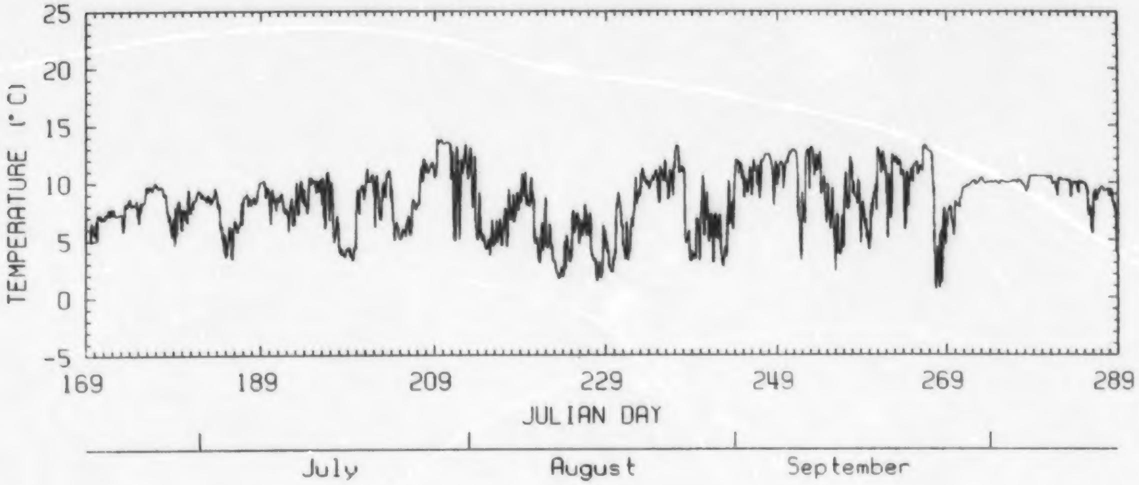
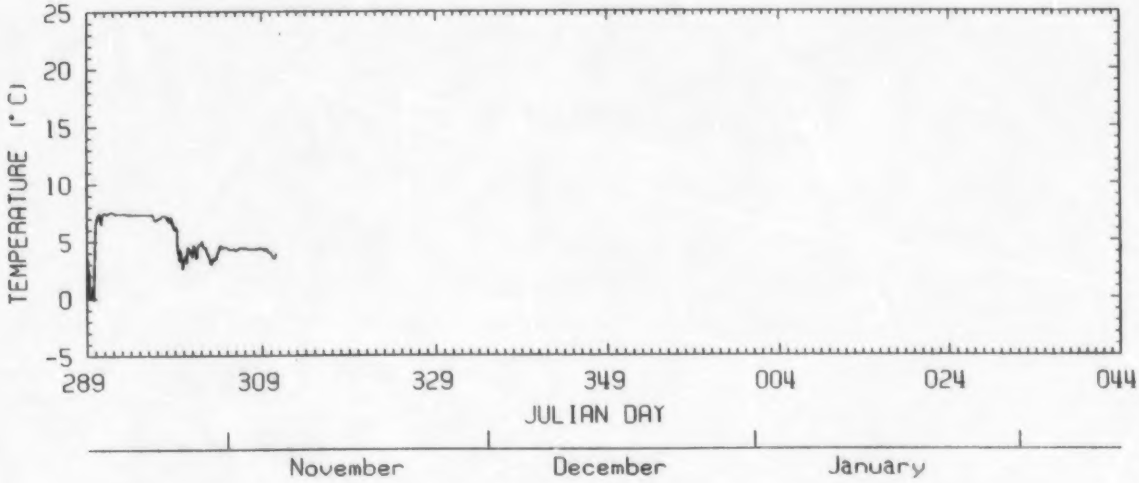




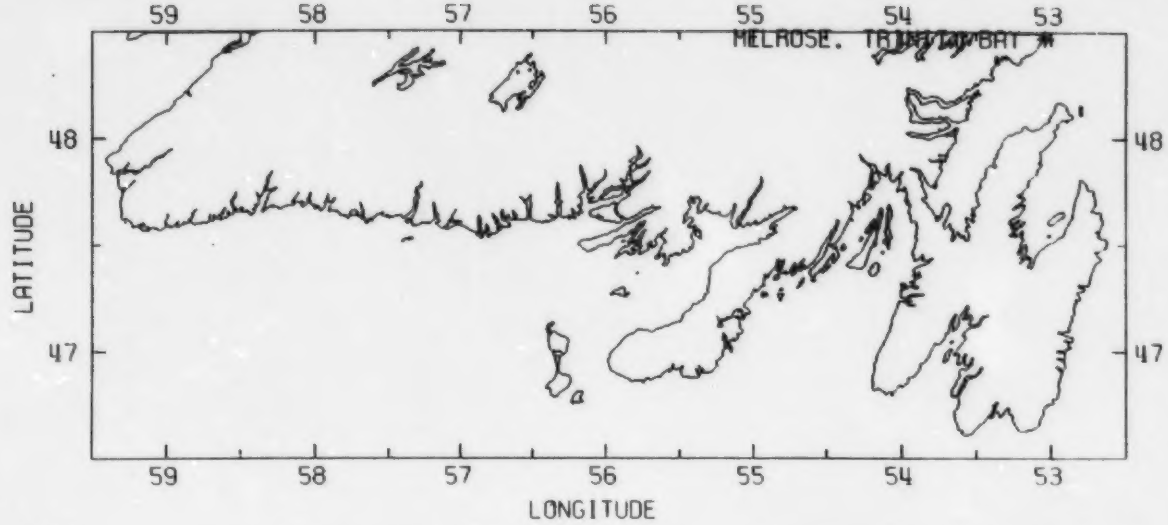
Start:18-JUN-1999 End: 6-NOV-1999 Inst. S/N:8A0B

THERMOGRAPH DATA SUMMARY

STATION NAME:	MELROSE, TRINITY BAY
STATION NUMBER:	102
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006600
LATITUDE:	48.47° N
LONGITUDE:	53.04° W
INSTRUMENT DEPTH:	5 m
WATER DEPTH:	31 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	2-JUN-1998 22:00 GMT
RECOVERY DATE/TIME:	30-OCT-1998 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	2.80	156	10.40	178	6.01	1.93	171.8	57.2	674
JUL-1998	1.10	204	14.80	208	8.72	2.82	270.3	146.4	744
AUG-1998	0.70	216	16.25	216	12.72	3.08	394.2	270.2	744
SEP-1998	3.50	249	13.80	244	11.10	1.56	332.9	212.9	720
OCT-1998	3.20	275	10.60	275	7.40	1.02	221.3	101.3	709
Total Period	0.70	216	16.25	216	9.25	3.30	1390.5	787.9	3591


MELROSE. TRINITY BAY
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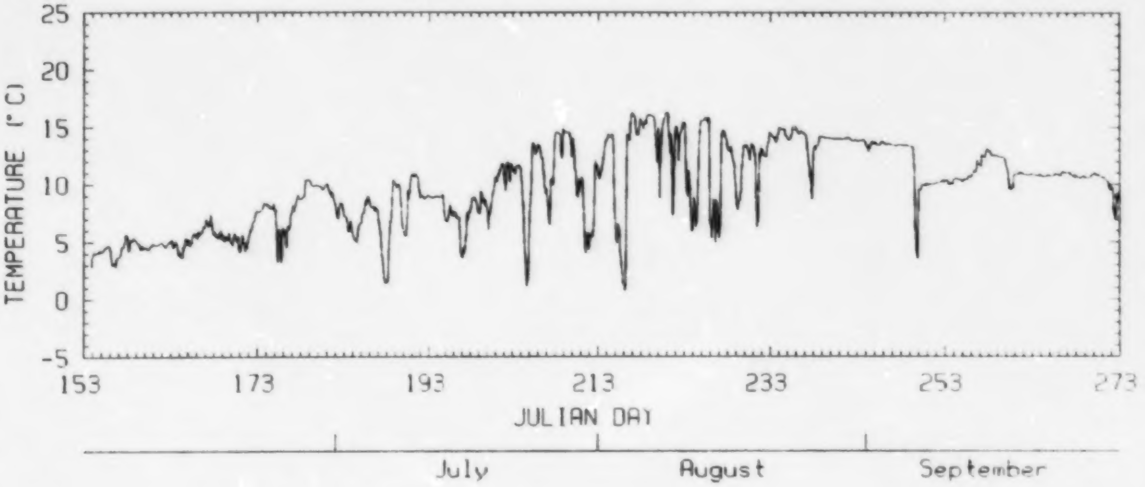
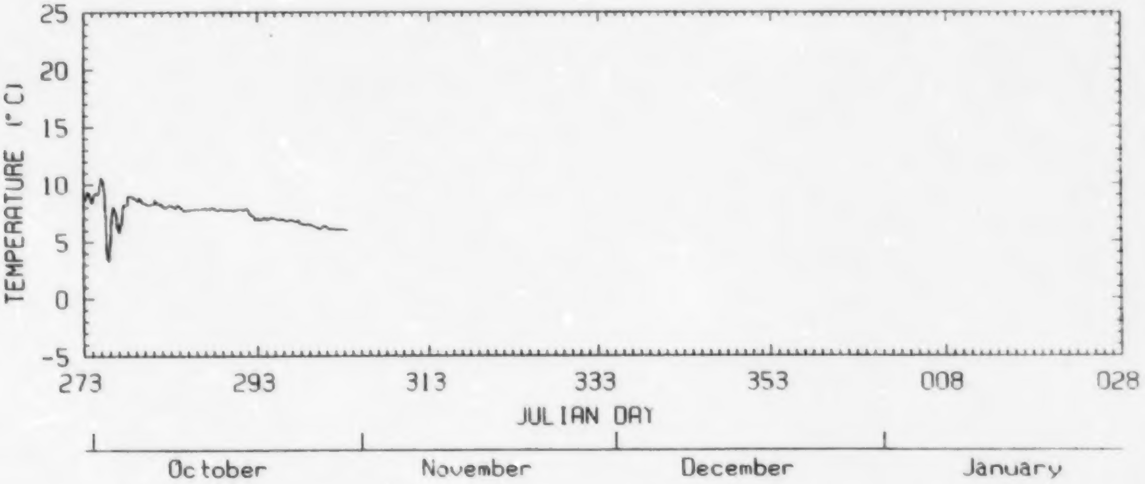




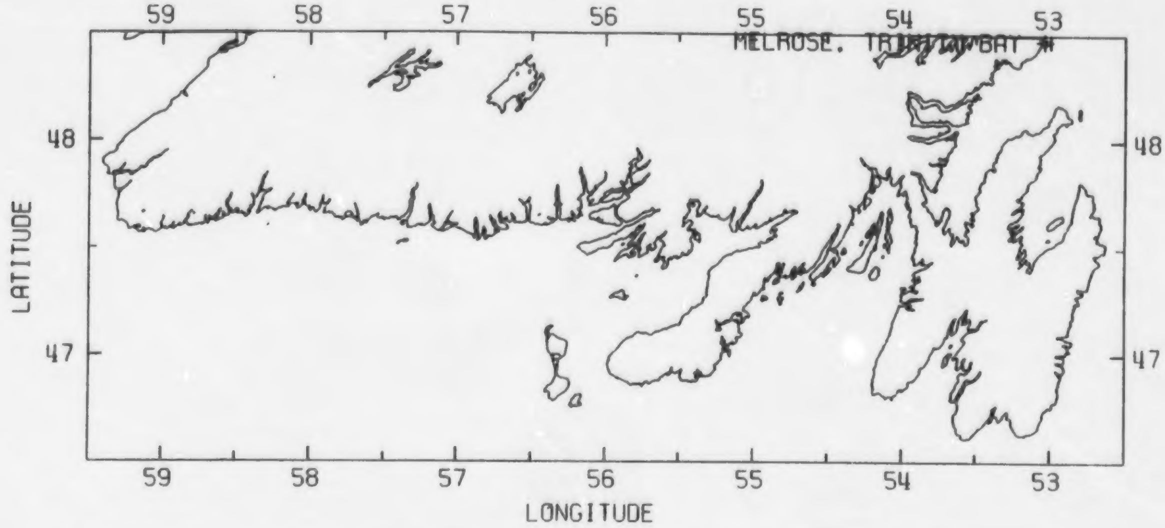
Start: 2-JUN-1998 End:30-OCT-1998 Inst. S/N:6600

THERMOGRAPH DATA SUMMARY

STATION NAME:	MELROSE, TRINITY BAY
STATION NUMBER:	102
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	003267
LATITUDE:	48.47° N
LONGITUDE:	53.04° W
INSTRUMENT DEPTH:	15 m
WATER DEPTH:	31 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	2-JUN-1998 22:00 GMT
RECOVERY DATE/TIME:	30-OCT-1998 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	0.70	175	10.30	178	4.53	2.30	127.9	29.4	674
JUL-1998	-0.05	204	14.35	209	5.89	2.82	182.7	65.0	744
AUG-1998	0.15	216	15.95	218	9.53	4.14	295.3	174.6	744
SEP-1998	1.55	249	13.60	246	10.43	1.97	313.0	193.0	720
OCT-1998	-0.10	275	9.55	274	7.05	1.37	210.9	90.9	709
Total Period	-0.10	275	15.95	218	7.53	3.49	1129.8	552.9	3591


MELROSE, TRINITY BAY #
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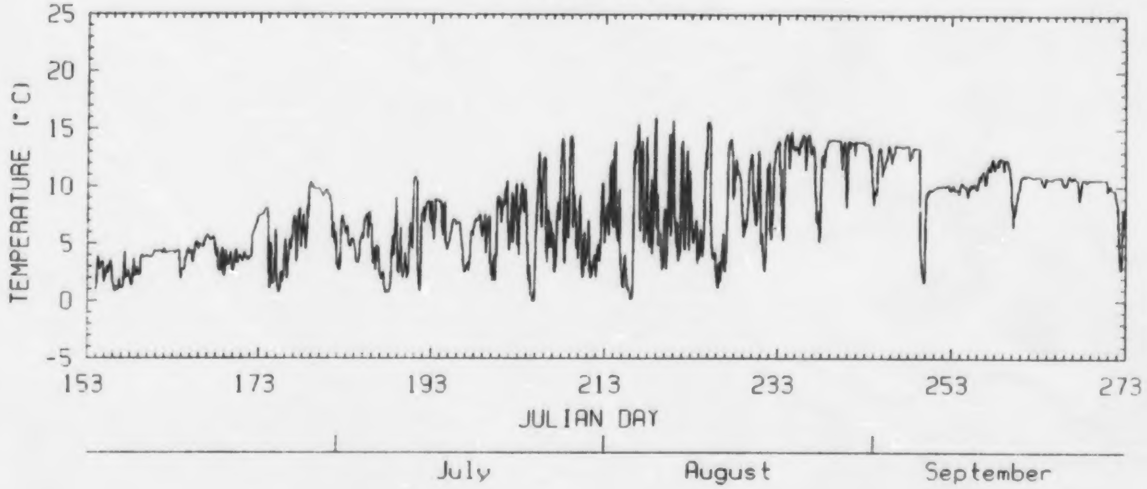
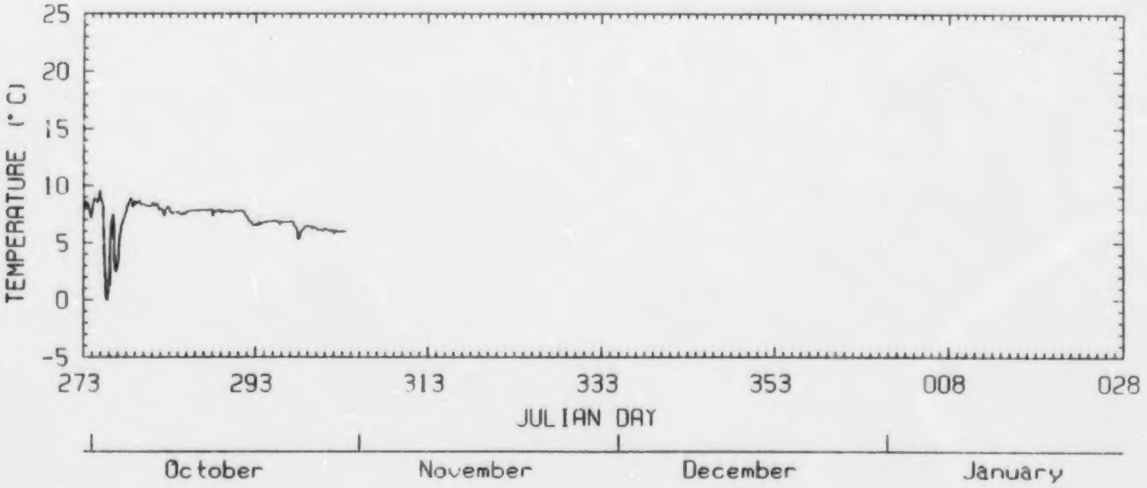




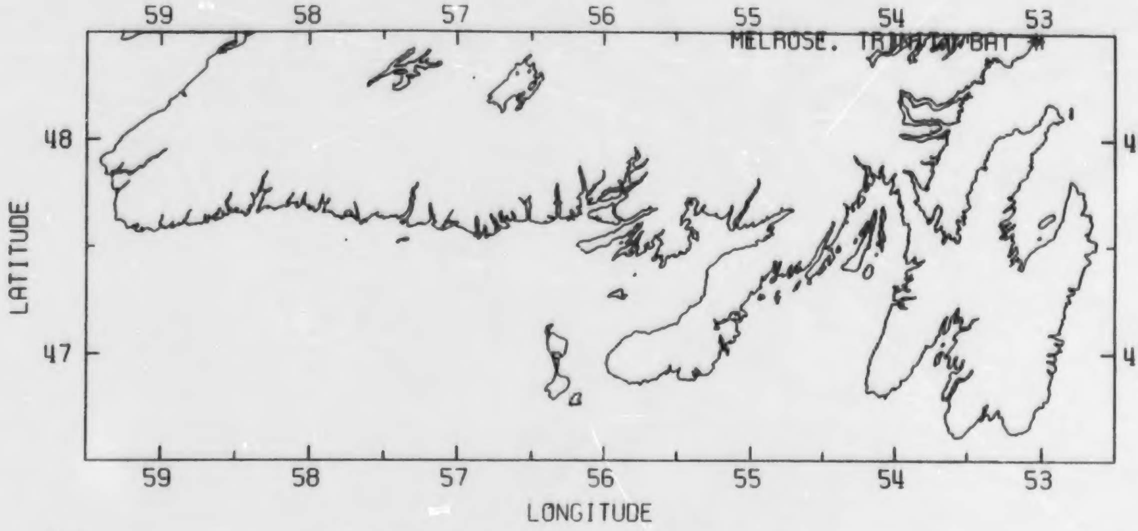
Start: 2-JUN-1998 End: 30-OCT-1998 Inst. S/N: 3267

THERMOGRAPH DATA SUMMARY

STATION NAME:	MELROSE, TRINITY BAY
STATION NUMBER:	102
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008AOA
LATITUDE:	48.47° N
LONGITUDE:	53.04° W
INSTRUMENT DEPTH:	15 m
WATER DEPTH:	31 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	16-JUN-1999 22:00 GMT
RECOVERY DATE/TIME:	29-SEP-1999 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	1.75	178	9.55	179	6.58	1.75	94.8	37.1	338
JUL-1999	2.15	182	14.00	209	9.26	2.46	287.0	163.4	744
AUG-1999	1.45	227	14.25	223	9.15	2.92	283.5	160.1	744
SEP-1999	0.60	267	14.15	246	10.81	2.46	313.7	197.8	684
Total Period	0.60	267	14.25	223	9.29	2.83	978.9	558.4	2510


MELROSE, TRINITY BAY
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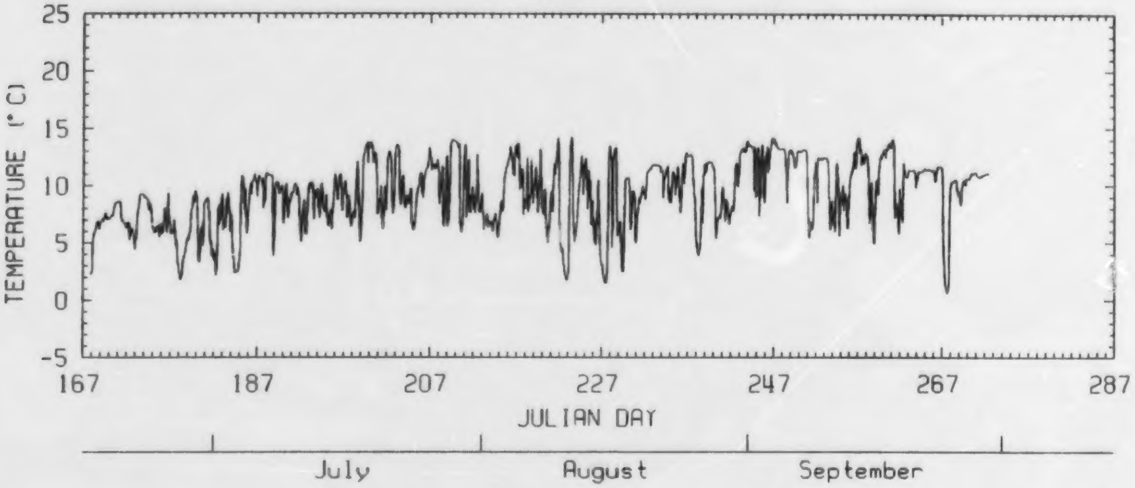


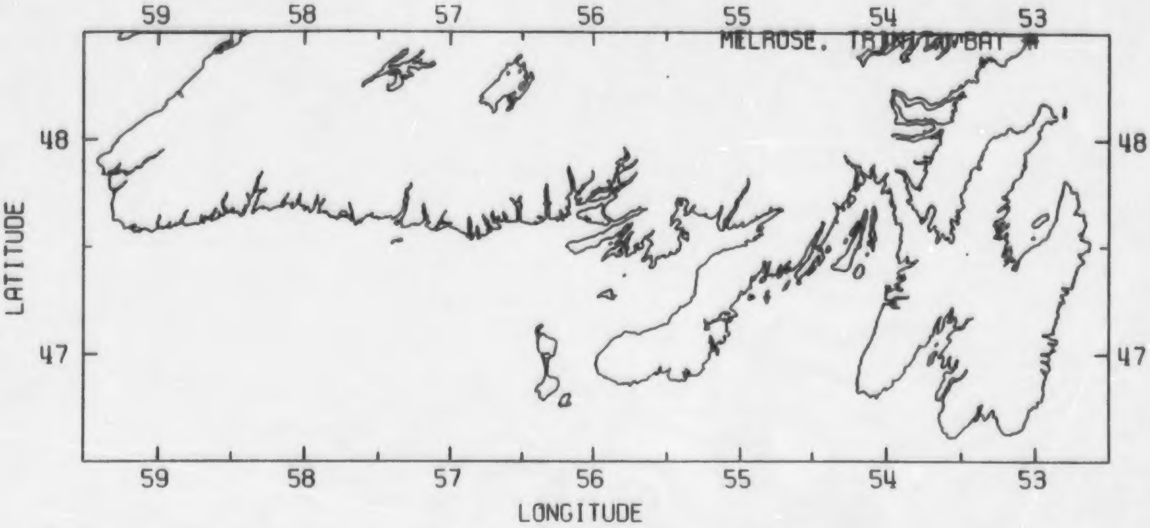
Start: 16-JUN-1999 End: 29-SEP-1999 Inst. S/N:8A0A

THERMOGRAPH DATA SUMMARY

STATION NAME:	MELROSE, TRINITY BAY
STATION NUMBER:	102
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005477
LATITUDE:	48.47° N
LONGITUDE:	53.04° W
INSTRUMENT DEPTH:	5 m
WATER DEPTH:	31 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	16-JUN-1999 22:00 GMT
RECOVERY DATE/TIME:	26-JUN-1999 19:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	2.60	167	9.70	176	7.60	1.25	79.2	36.5	238
Total Period	2.60	167	9.70	176	7.60	1.25	79.2	36.5	238


MELROSE, TRINITY BAY
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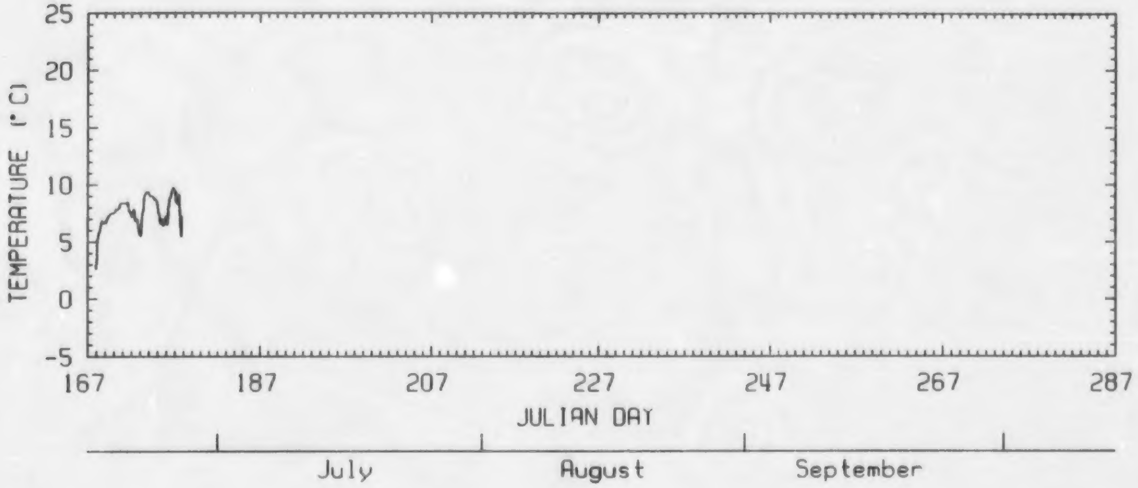


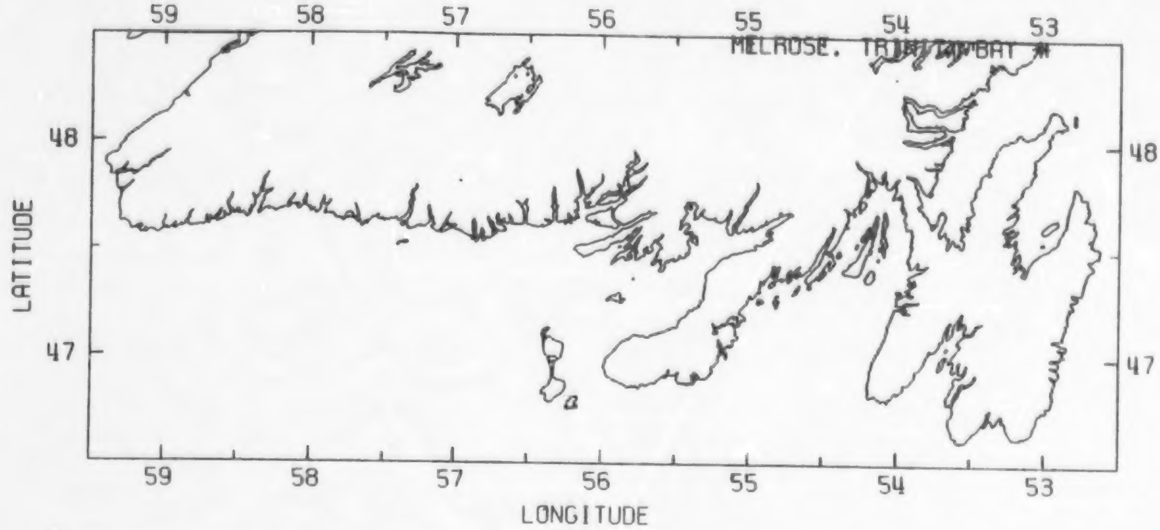
Start: 16-JUN-1999 End: 26-JUN-1999 Inst. S/N:5477

THERMOGRAPH DATA SUMMARY

STATION NAME:	MELROSE, TRINITY BAY
STATION NUMBER:	102
INSTRUMENT TYPE:	Seamon Mini (Hugrun)
INSTRUMENT S/N:	00C147
LATITUDE:	48.47° N
LONGITUDE:	53.04° W
INSTRUMENT DEPTH:	5 m
WATER DEPTH:	31 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	30-SEP-1999 18:00 GMT
RECOVERY DATE/TIME:	8-NOV-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1999	10.87	273	11.15	273	11.01	0.08	11.0	7.0	6
OCT-1999	0.47	288	11.17	276	7.89	2.37	244.6	120.6	744
NOV-1999	4.05	309	4.80	305	4.50	0.13	36.0	4.0	186
Total Period	0.47	288	11.17	276	7.24	2.53	291.5	131.5	936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MELROSE, TRINITY BAY
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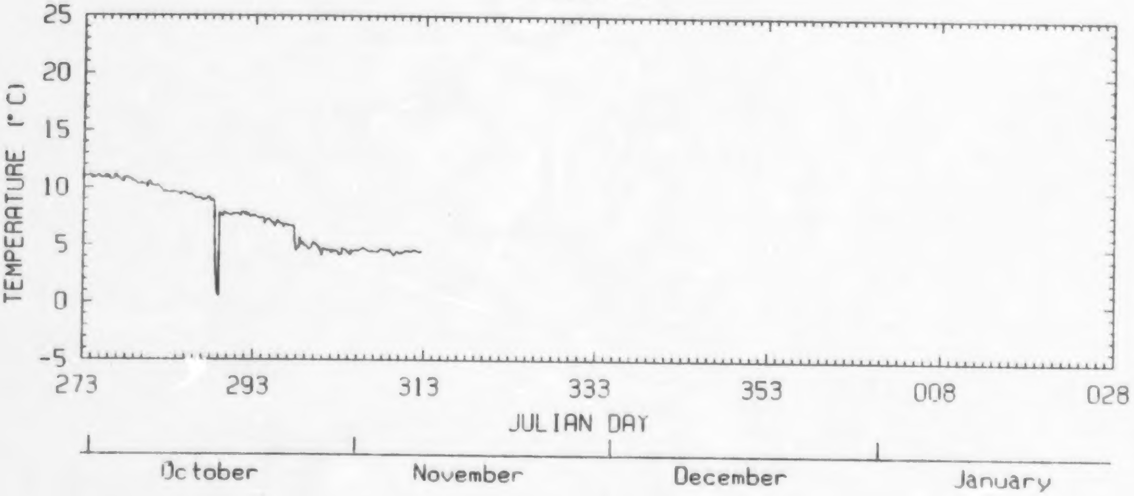


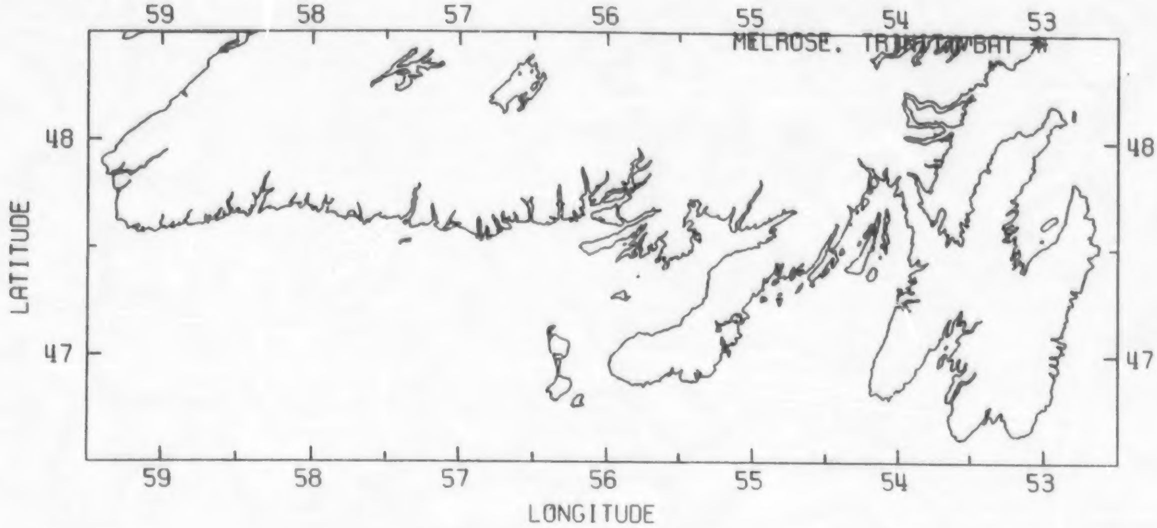
Start: 30-SEP-1999 End: 8-NOV-1999 Inst. S/N:C147

THERMOGRAPH DATA SUMMARY

STATION NAME:	MELROSE, TRINITY BAY
STATION NUMBER:	102
INSTRUMENT TYPE:	Seamon Mini (Hugrun)
INSTRUMENT S/N:	00C163
LATITUDE:	48.47° N
LONGITUDE:	53.04° W
INSTRUMENT DEPTH:	15 m
WATER DEPTH:	31 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	30-SEP-1999 18:00 GMT
RECOVERY DATE/TIME:	8-NOV-1999 18:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1999	10.62	273	10.87	273	10.72	0.08	10.7	6.7	6
OCT-1999	0.47	288	10.97	276	7.83	2.43	242.7	118.7	744
NOV-1999	3.20	312	4.72	305	4.48	0.18	35.8	3.8	187
Total Period	0.47	288	10.97	276	7.18	2.56	289.2	129.2	937


MELROSE, TRINITY BAY *
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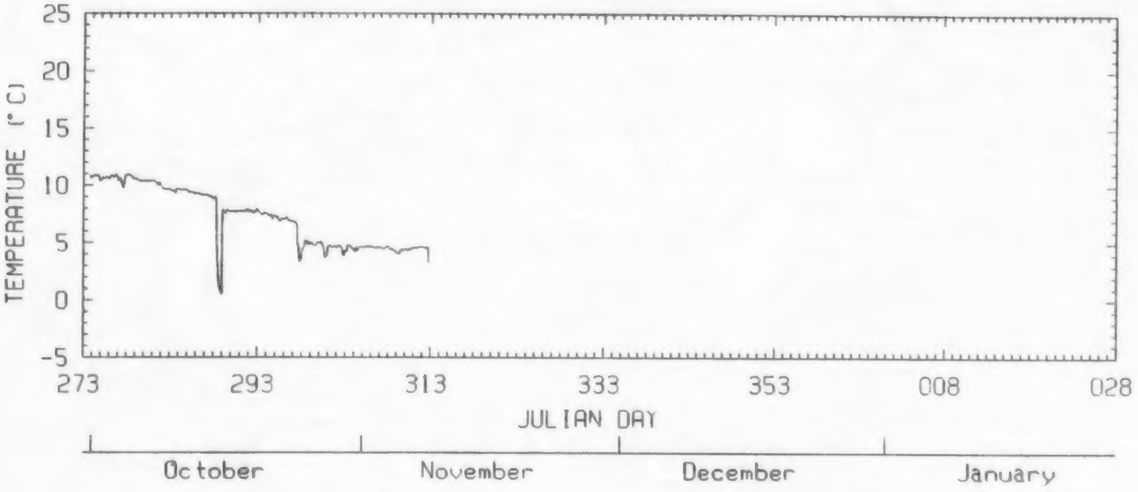


Start: 30-SEP-1999 End: 8-NOV-1999 Inst. S/N:C163

THERMOGRAPH DATA SUMMARY

STATION NAME: New Harbour (North), Trinity Bay

STATION NUMBER: 252

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 008964

LATITUDE: 47.58° N

LONGITUDE: 53.56° W

INSTRUMENT DEPTH: 3 m

WATER DEPTH: 16 m

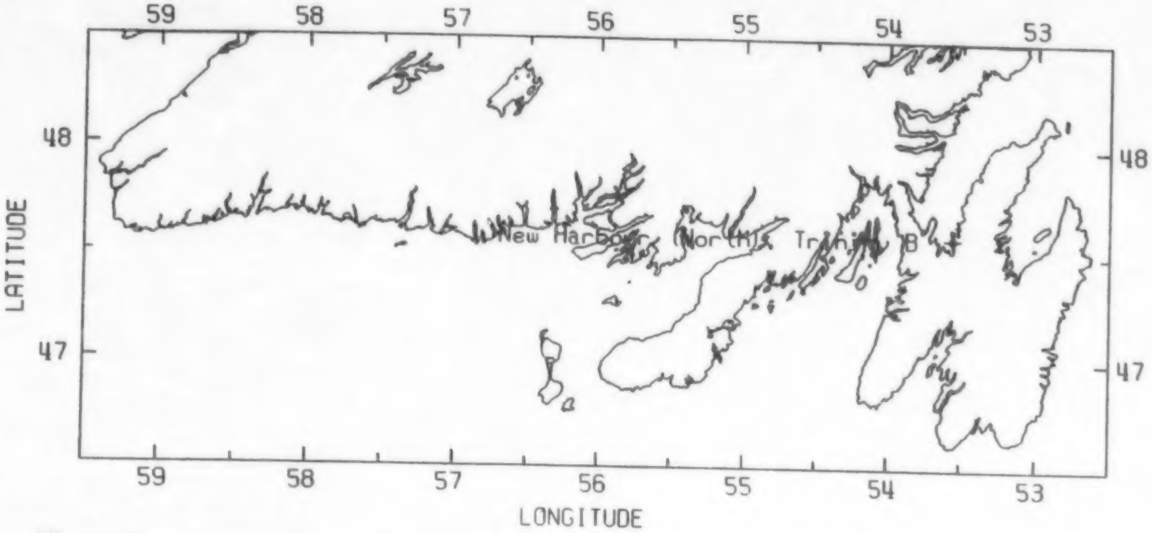
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 19-AUG-1999 15:00 GMT

RECOVERY DATE/TIME: 11-DEC-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	5.80	232	14.85	242	12.05	2.15	155.9	103.9	297
SEP-1999	5.75	270	16.25	257	13.68	1.34	410.4	290.4	720
OCT-1999	6.45	304	12.30	274	9.62	1.71	298.1	174.1	744
NOV-1999	2.65	334	7.15	308	5.46	0.95	163.8	43.9	720
DEC-1999	2.70	335	4.00	343	3.58	0.29	39.4	0.0	254
Total Period	2.65	334	16.25	257	9.30	3.85	1067.6	612.3	2735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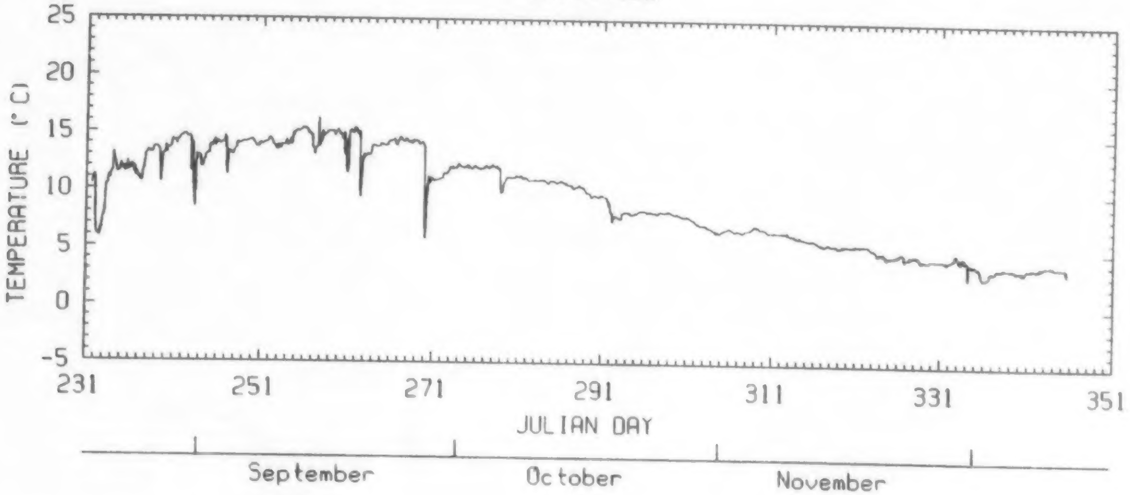
New Harbour North, Trinity B



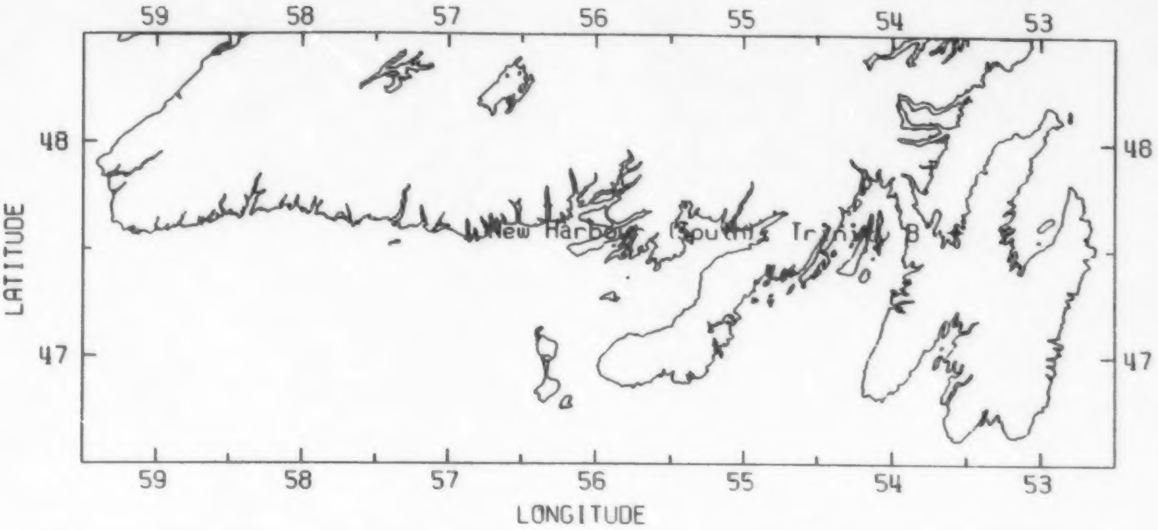
Start: 19-AUG-1999 End: 11-DEC-1999 Inst. S/N:8964

THERMOGRAPH DATA SUMMARY

STATION NAME:	New Harbour (South), Trinity Bay
STATION NUMBER:	251
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007935
LATITUDE:	47.59° N
LONGITUDE:	53.58° W
INSTRUMENT DEPTH:	4 m
WATER DEPTH:	15 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	19-AUG-1999 18:00 GMT
RECOVERY DATE/TIME:	11-DEC-1999 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	5.95	232	14.85	242	12.04	2.07	155.9	103.9	294
SEP-1999	10.80	270	15.35	259	13.68	1.05	410.4	290.4	720
OCT-1999	6.45	304	12.15	274	9.48	1.69	294.0	170.0	744
NOV-1999	3.05	334	6.85	305	5.36	0.92	160.7	40.7	720
DEC-1999	1.70	345	4.10	335	3.48	0.29	38.3	0.0	255
Total Period	1.70	345	15.35	259	9.22	3.86	1059.3	605.0	2733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LATITUDE
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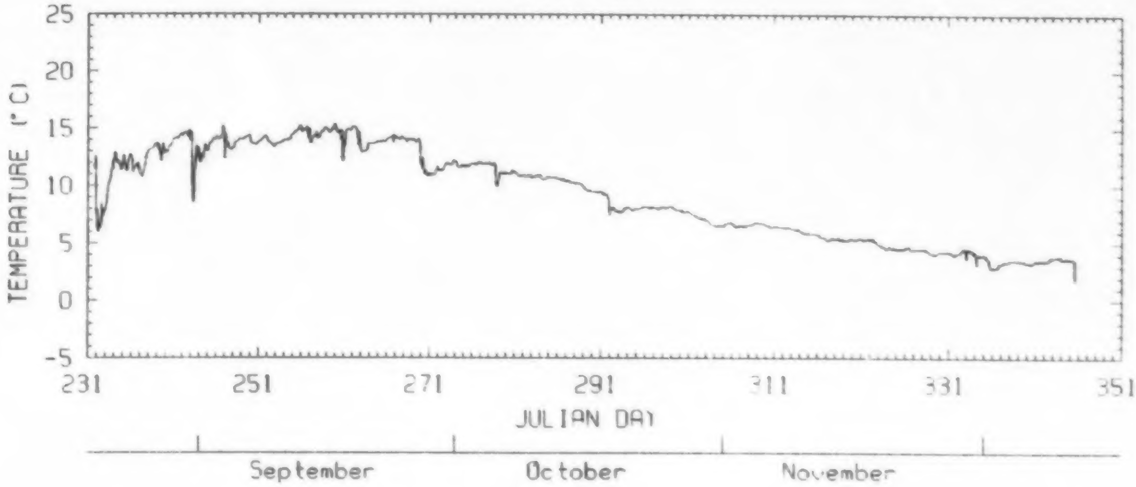
New Harbour (South) Trinity B



Start: 19-AUG-1999 End: 11-DEC-1999 Inst. S/N:7935

THERMOGRAPH DATA SUMMARY

STATION NAME:	WINTERTON
STATION NUMBER:	189
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006741
LATITUDE:	47.94° N
LONGITUDE:	53.35° W
INSTRUMENT DEPTH:	11 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	29-MAY-1998 20:00 GMT
RECOVERY DATE/TIME:	6-OCT-1998 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	4.25	149	5.25	151	4.75	0.28	13.9	1.9	52
JUN-1998	-0.75	180	11.90	172	6.24	3.00	187.3	80.6	720
JUL-1998	-0.35	193	14.95	212	10.64	3.02	330.0	211.3	744
AUG-1998	4.10	214	14.80	213	11.07	2.04	343.2	219.2	744
SEP-1998	2.80	247	14.20	245	12.31	1.74	369.2	249.2	720
OCT-1998	11.10	279	12.40	274	11.80	0.31	70.7	46.7	137
Total Period	-0.75	180	14.95	212	10.07	3.38	1314.2	808.9	3117

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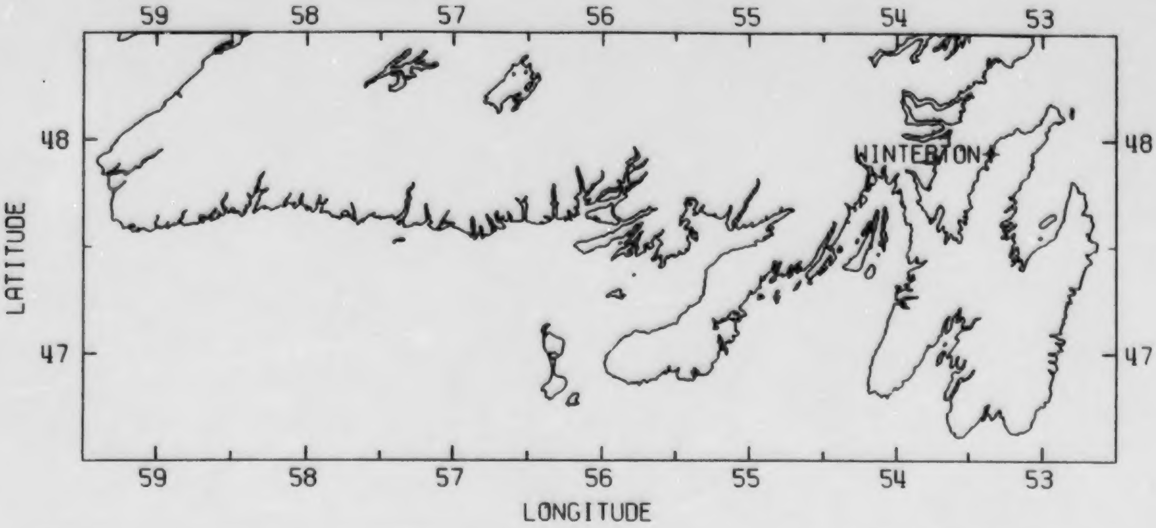
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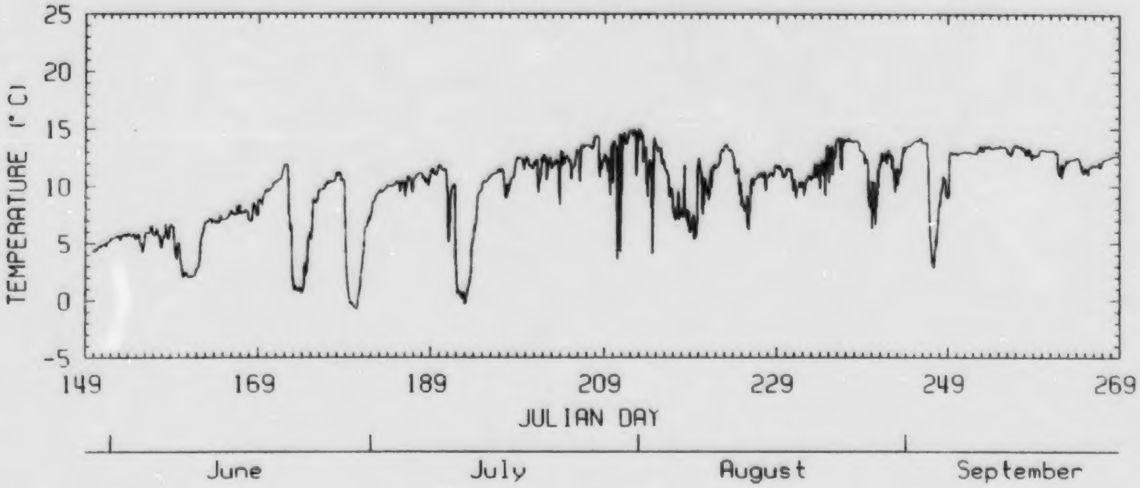
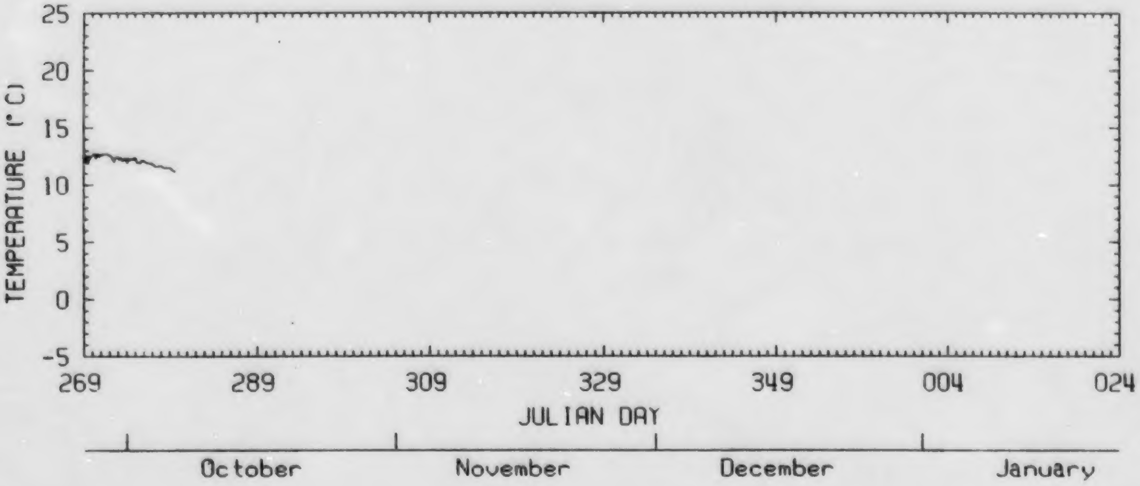
LATITUDE
WINTERTON
LONGITUDE





Start:29-MAY-1998 End: 6-OCT-1998 Inst. S/N:6741

Appendix 9. Time Series Plots and Monthly Statistics from Unit Area 3Lf.

THERMOGRAPH DATA SUMMARY

STATION NAME: BRISTOL'S HOPE

STATION NUMBER: 101

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 005456

LATITUDE: 47.73° N

LONGITUDE: 53.18° W

INSTRUMENT DEPTH: 5 m

WATER DEPTH: 10 m

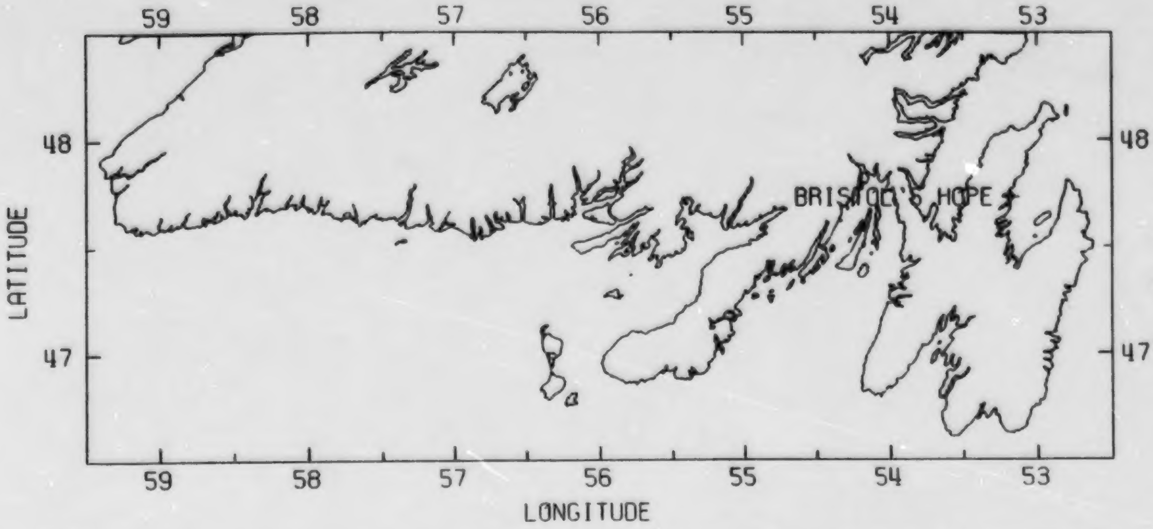
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 2-JUN-1998 19:00 GMT

RECOVERY DATE/TIME: 14-NOV-1998 18:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	1.20	164	9.70	178	6.19	1.89	177.5	63.9	677
JUL-1998	1.90	183	11.80	210	8.16	1.91	253.1	129.0	744
AUG-1998	-0.55	223	14.10	225	8.53	3.76	264.3	148.0	744
SEP-1998	-0.70	250	14.20	246	9.96	2.80	298.8	180.9	720
OCT-1998	0.00	276	9.95	274	7.86	1.42	243.7	119.7	744
NOV-1998	5.10	318	7.35	307	6.46	0.54	90.2	34.2	331
Total Period	-0.70	250	14.20	246	8.02	2.70	1327.5	675.7	3960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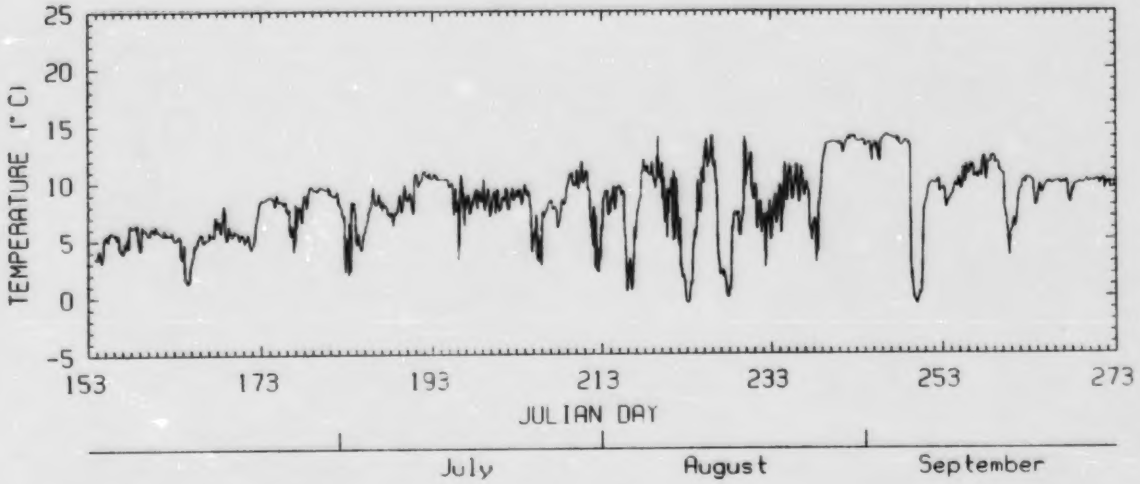
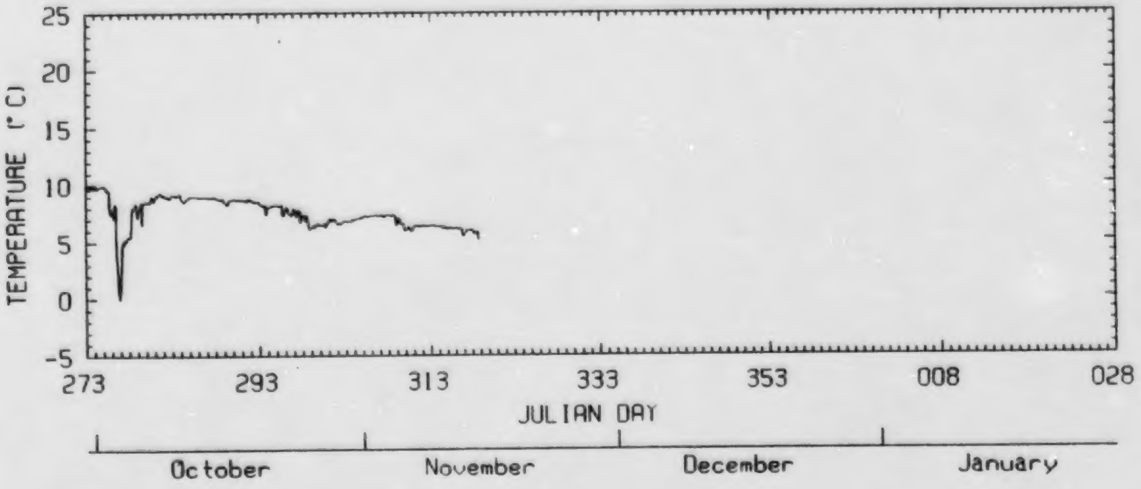
LATITUDE
LONGITUDE
BRISTOL'S HOPE





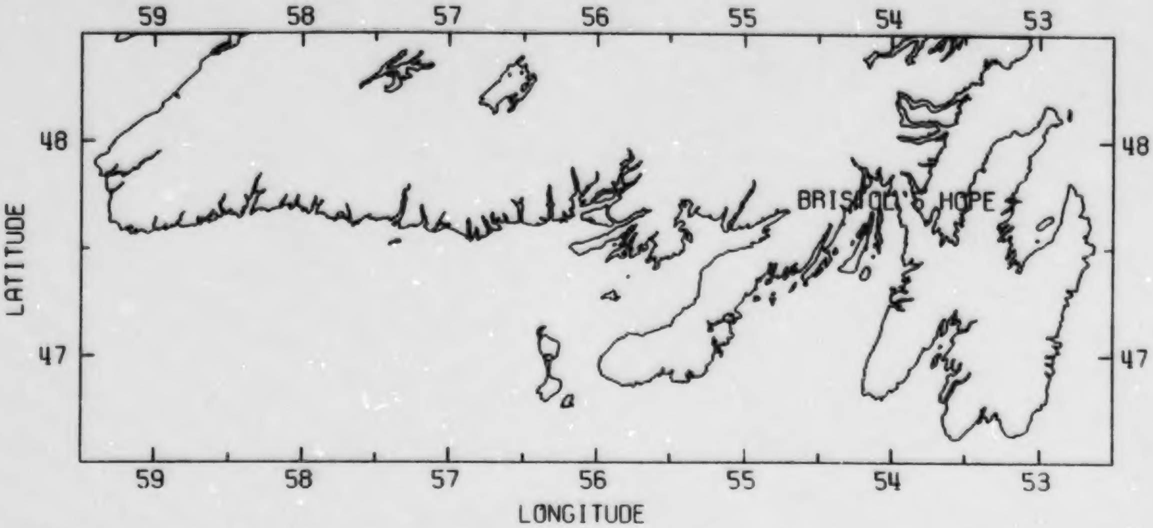
Start: 2-JUN-1998 End: 14-NOV-1998 Inst. S/N: 5456

THERMOGRAPH DATA SUMMARY

STATION NAME:	BRISTOL'S HOPE
STATION NUMBER:	101
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008AO9
LATITUDE:	47.73° N
LONGITUDE:	53.18° W
INSTRUMENT DEPTH:	5 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	11-JUN-1999 12:00 GMT
RECOVERY DATE/TIME:	8-NOV-1999 07:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	2.00	179	10.55	176	7.06	2.30	140.0	60.2	468
JUL-1999	0.50	184	16.15	212	10.98	3.06	340.2	216.4	744
AUG-1999	2.80	223	16.30	219	12.06	2.87	373.8	249.8	744
SEP-1999	0.25	268	14.45	246	11.42	2.87	342.7	223.7	720
OCT-1999	-0.20	289	11.00	278	8.04	2.52	249.3	129.0	744
NOV-1999	4.15	309	5.80	305	5.33	0.46	42.4	10.4	176
Total Period	-0.20	289	16.30	219	9.89	3.43	1488.3	889.4	3596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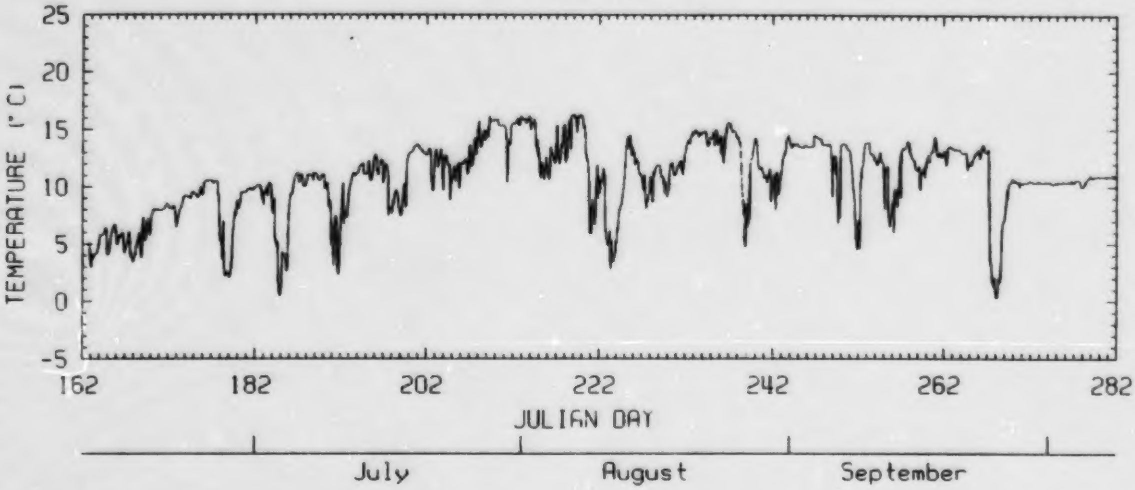
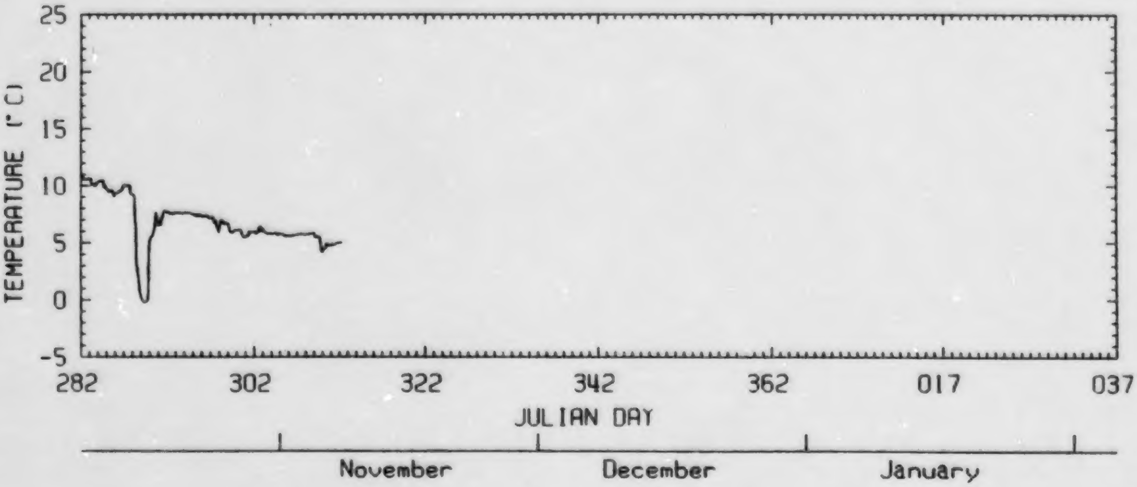
LATITUDE
LONGITUDE
BRISTOL'S HOPE





Start:11-JUN-1999 End: 8-NOV-1999 Inst. S/N:8A09

THERMOGRAPH DATA SUMMARY

STATION NAME: Port De Grave

STATION NUMBER: 215

INSTRUMENT TYPE: Minilog-T (Vemco)

INSTRUMENT S/N: 006433

LATITUDE: 47.57° N

LONGITUDE: 53.17° W

INSTRUMENT DEPTH: 44 m

WATER DEPTH: 46 m

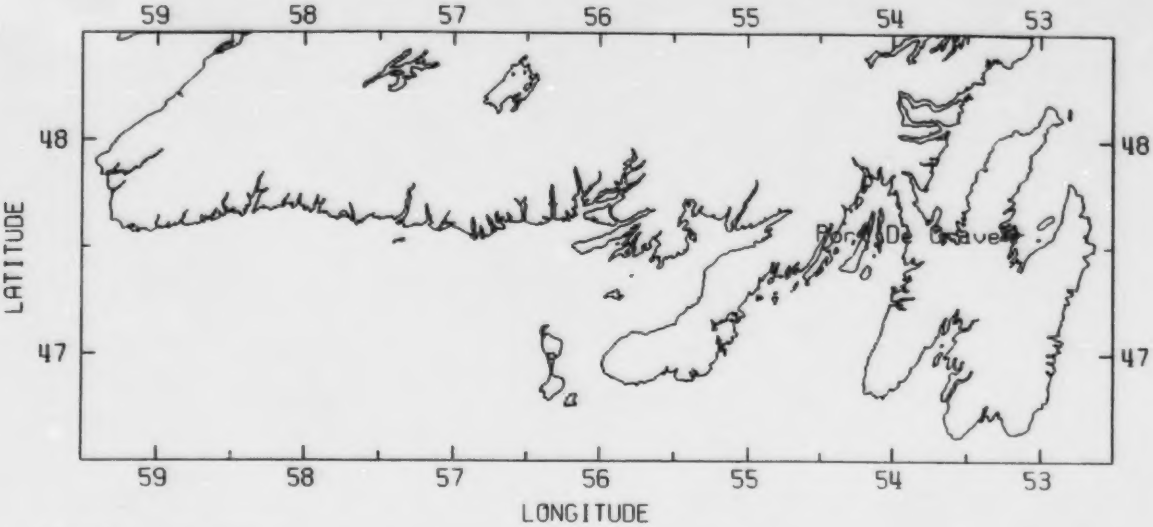
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 1-JUL-1998 10:00 GMT

RECOVERY DATE/TIME: 10-SEP-1998 08:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	-1.00	183	3.70	192	-0.18	0.82	6.7	0.0	734
AUG-1998	-1.00	213	7.50	239	-0.35	0.87	5.0	0.0	744
SEP-1998	-1.20	249	4.90	247	0.66	1.36	8.1	0.0	225
Total Period	-1.20	249	7.50	239	-0.15	0.99	19.8	0.0	1703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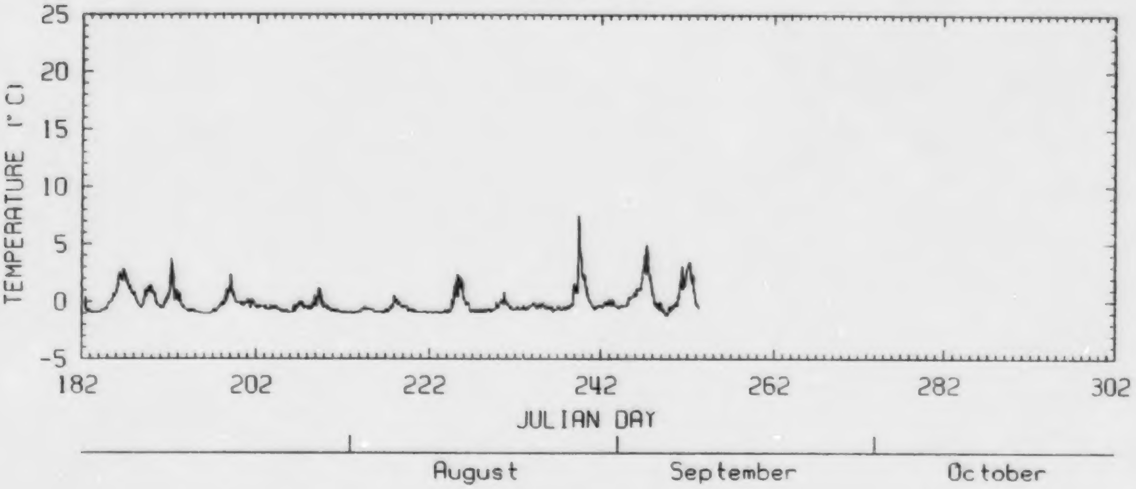
LATITUDE
LONGITUDE
Port De Grave



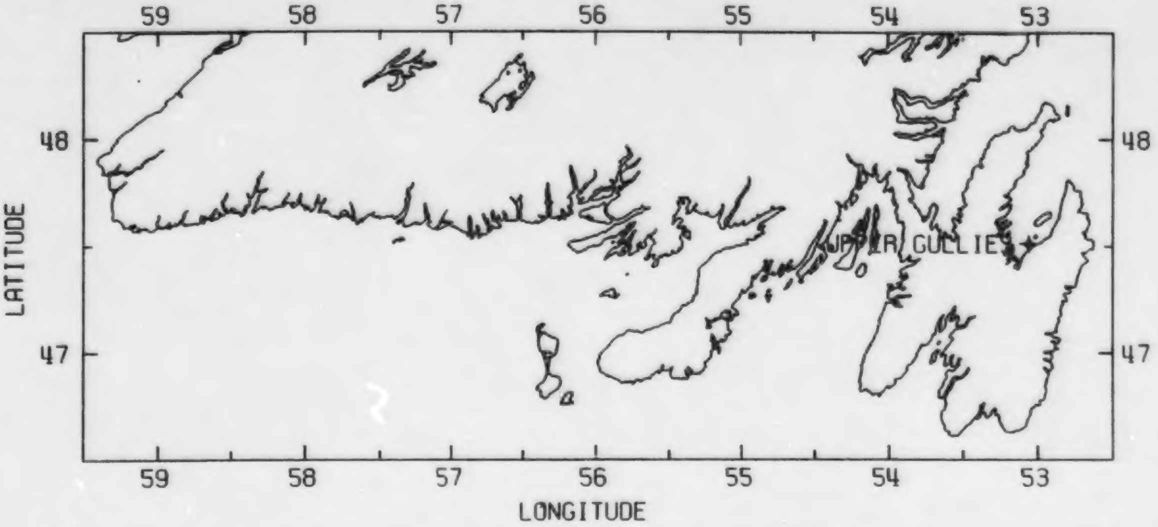
Start: 1-JUL-1998 End: 10-SEP-1998 Inst. S/N:6433

THERMOGRAPH DATA SUMMARY

STATION NAME:	UPPER GULLIES
STATION NUMBER:	106
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006642
LATITUDE:	47.51° N
LONGITUDE:	53.06° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	10 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	30-MAY-1998 16:00 GMT
RECOVERY DATE/TIME:	26-NOV-1998 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	4.95	151	5.65	151	5.18	0.18	10.4	2.4	32
JUN-1998	2.65	154	12.00	181	7.41	2.15	222.3	103.0	720
JUL-1998	5.95	207	14.35	204	10.21	1.63	316.6	192.6	744
AUG-1998	2.20	224	14.55	226	9.46	2.64	293.3	169.3	744
SEP-1998	9.00	254	13.80	245	11.74	1.02	352.1	232.1	720
OCT-1998	6.15	300	11.30	274	8.67	0.89	268.8	144.8	744
NOV-1998	3.65	324	8.35	307	6.31	1.13	163.7	59.7	614
Total Period	2.20	224	14.55	226	9.01	2.46	1627.3	903.9	4318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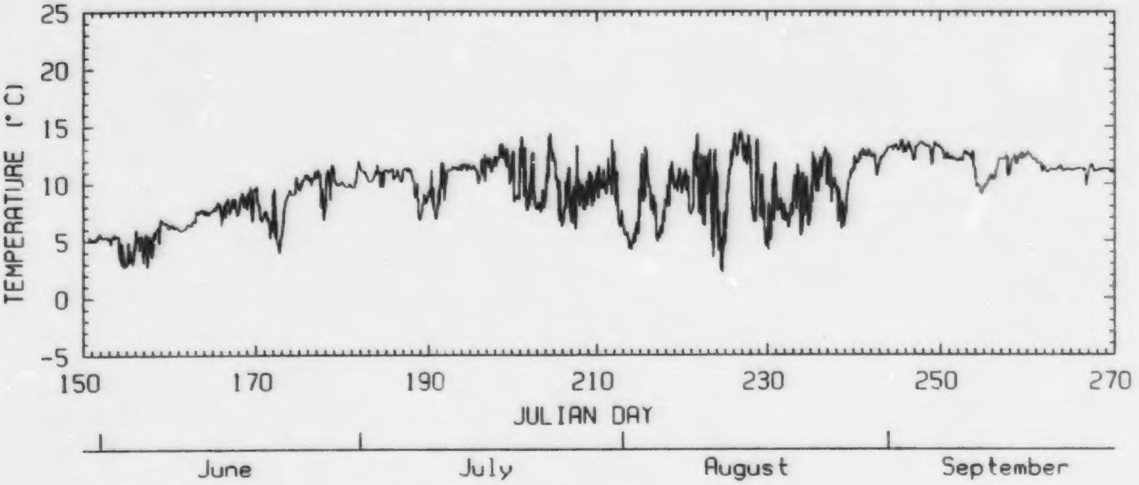
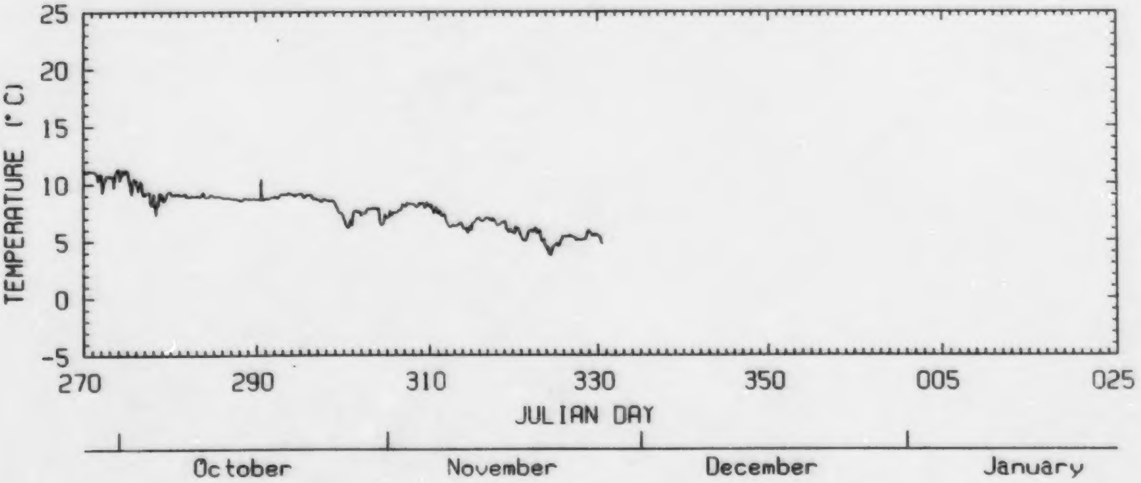
LATITUDE
LONGITUDE
UPPER GULLIES





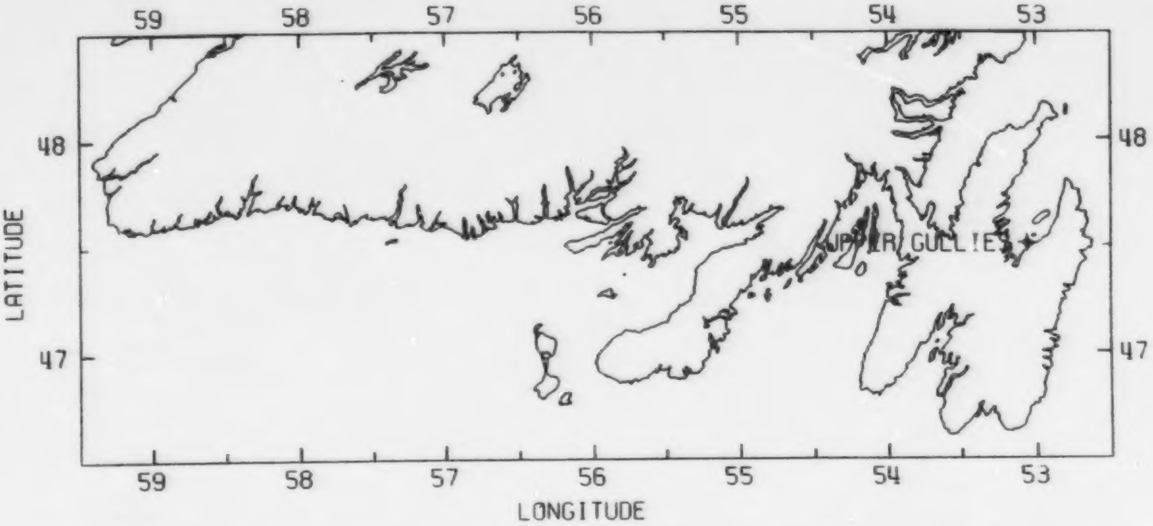
Start:30-MAY-1998 End:26-NOV-1998 Inst. S/N:6642

THERMOGRAPH DATA SUMMARY

STATION NAME: UPPER GULLIES
STATION NUMBER: 106
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 007932
LATITUDE: 47.51° N
LONGITUDE: 53.06° W
INSTRUMENT DEPTH: 9 m
WATER DEPTH: 10 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 13-JUN-1999 14:00 GMT
RECOVERY DATE/TIME: 6-NOV-1999 02:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	3.80	168	12.60	179	9.00	1.70	161.4	89.4	418
JUL-1999	5.30	185	15.90	211	12.68	2.09	393.1	269.1	744
AUG-1999	8.00	228	17.95	220	13.58	2.35	421.0	297.0	744
SEP-1999	8.10	256	16.35	255	14.03	1.47	421.0	301.0	720
OCT-1999	6.20	304	12.70	275	9.38	2.17	290.7	166.7	744
NOV-1999	6.20	305	6.95	309	6.40	0.14	38.4	14.4	123
Total Period	3.80	168	17.95	220	11.79	3.00	1725.6	1137.6	3493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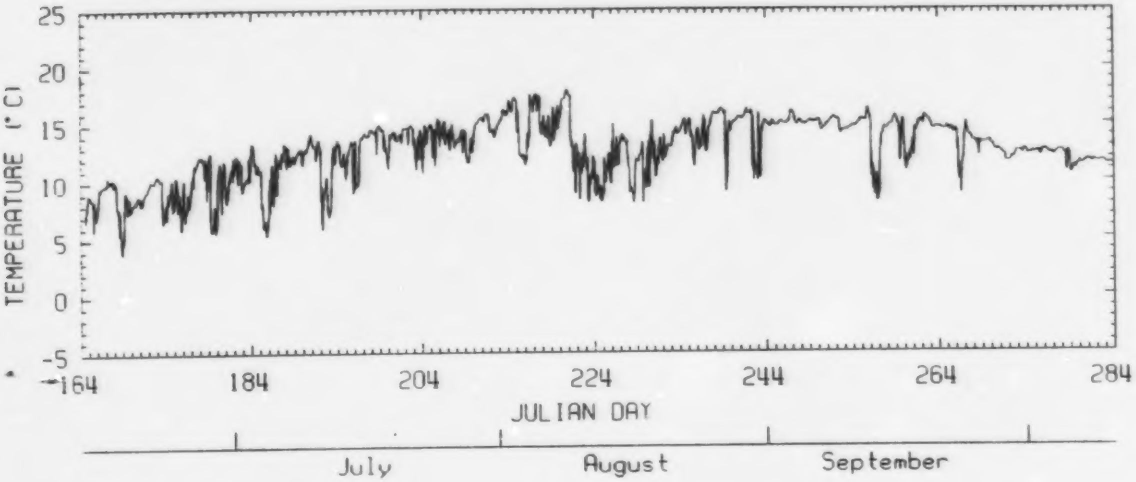
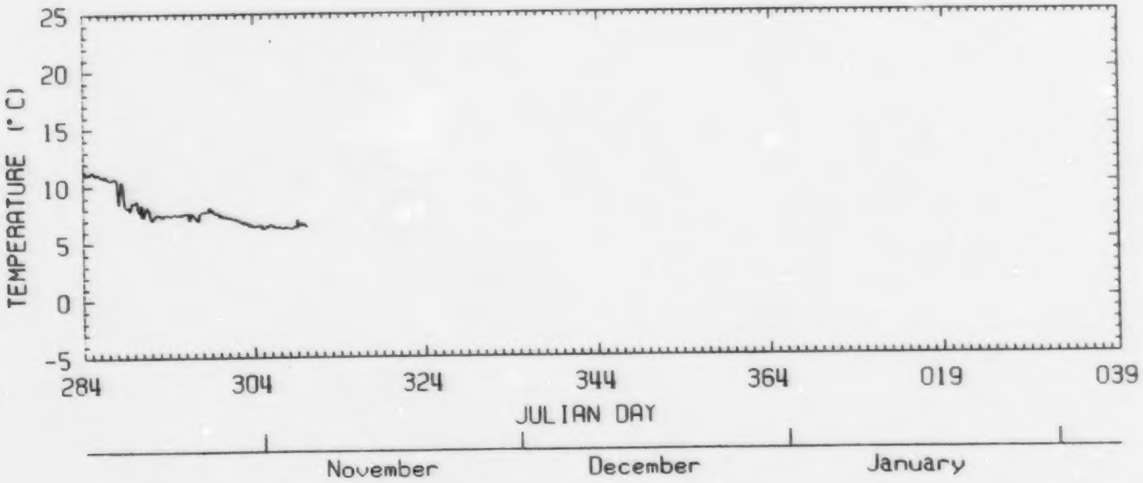
LATITUDE
LONGITUDE
UPPER GULLIES





Start:13-JUN-1999 End: 6-NOV-1999 Inst. S/N:7932

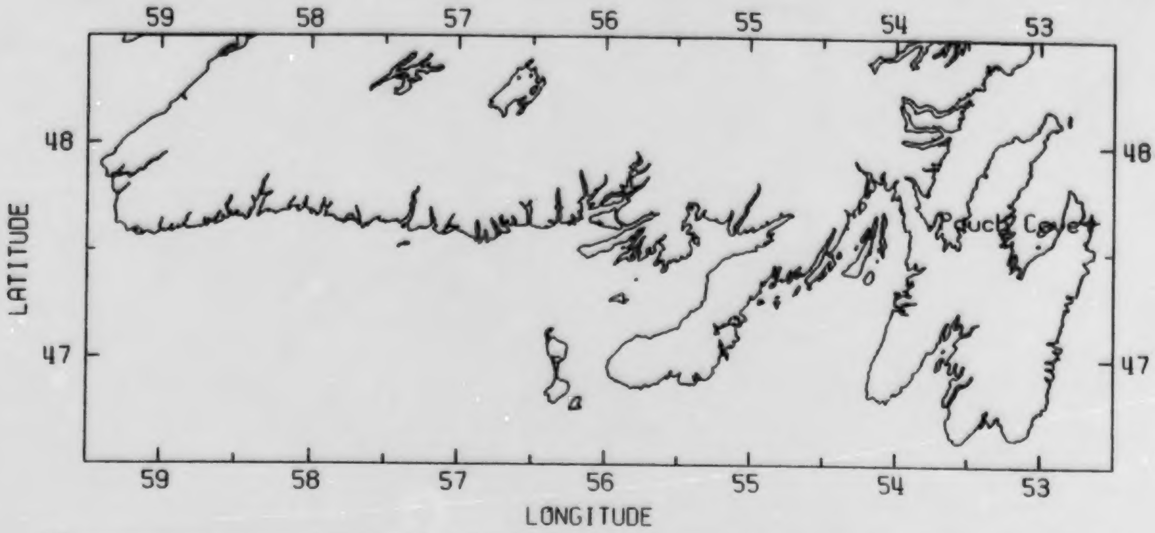
Appendix 10. Time Series Plots and Monthly Statistics from Unit Area 3Li.

THERMOGRAPH DATA SUMMARY

STATION NAME:	Pouch Cove
STATION NUMBER:	235
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004349
LATITUDE:	47.66° N
LONGITUDE:	52.65° W
INSTRUMENT DEPTH:	38 m
WATER DEPTH:	40 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	12-AUG-1998 17:00 GMT
RECOVERY DATE/TIME:	28-AUG-1998 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1998	-1.00	231	6.30	237	0.01	0.76	2.3	0.0	379
Total Period	-1.00	231	6.30	237	0.01	0.76	2.3	0.0	379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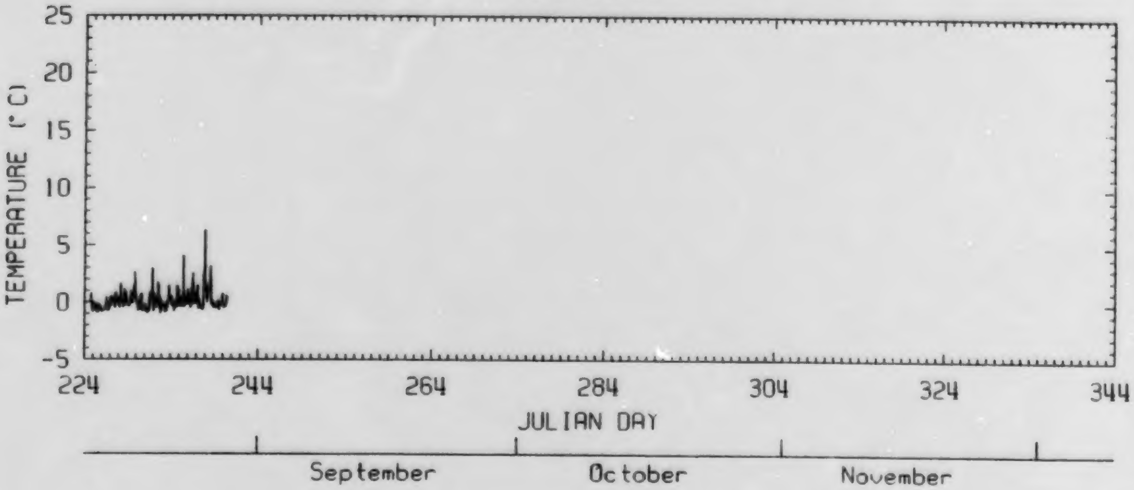
LATITUDE
LONGITUDE
Pouch Cove



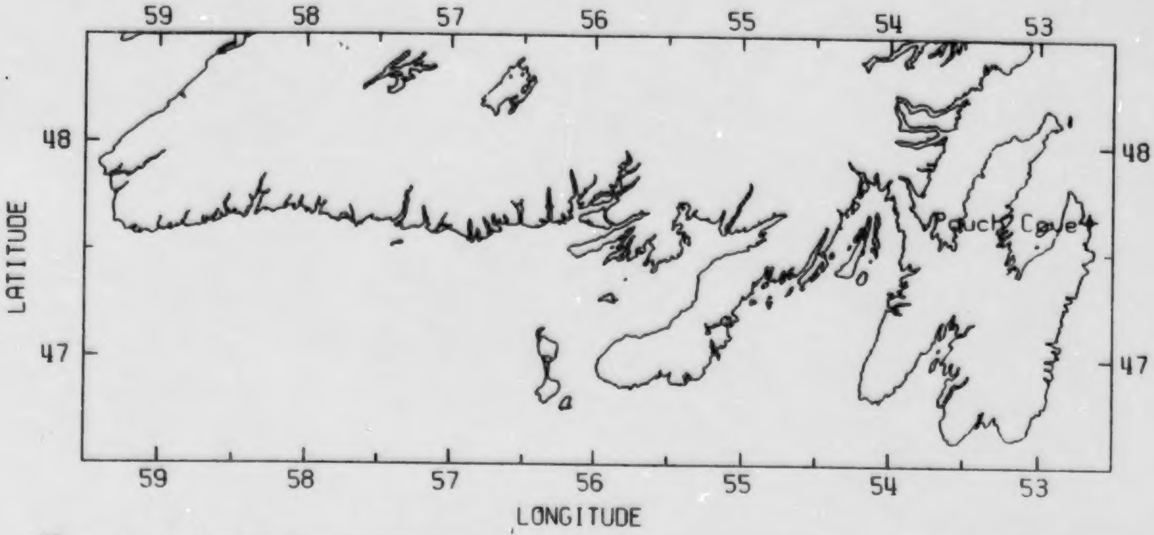
Start: 12-AUG-1998 End: 28-AUG-1998 Inst. S/N:4349

THERMOGRAPH DATA SUMMARY

STATION NAME:	Pouch Cove
STATION NUMBER:	235
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006441
LATITUDE:	47.66° N
LONGITUDE:	52.66° W
INSTRUMENT DEPTH:	37 m
WATER DEPTH:	40 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	1-JUL-1999 11:00 GMT
RECOVERY DATE/TIME:	29-JUL-1999 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	-0.70	193	3.80	191	0.70	0.78	20.7	0.0	672
Total Period	-0.70	193	3.80	191	0.70	0.78	20.7	0.0	672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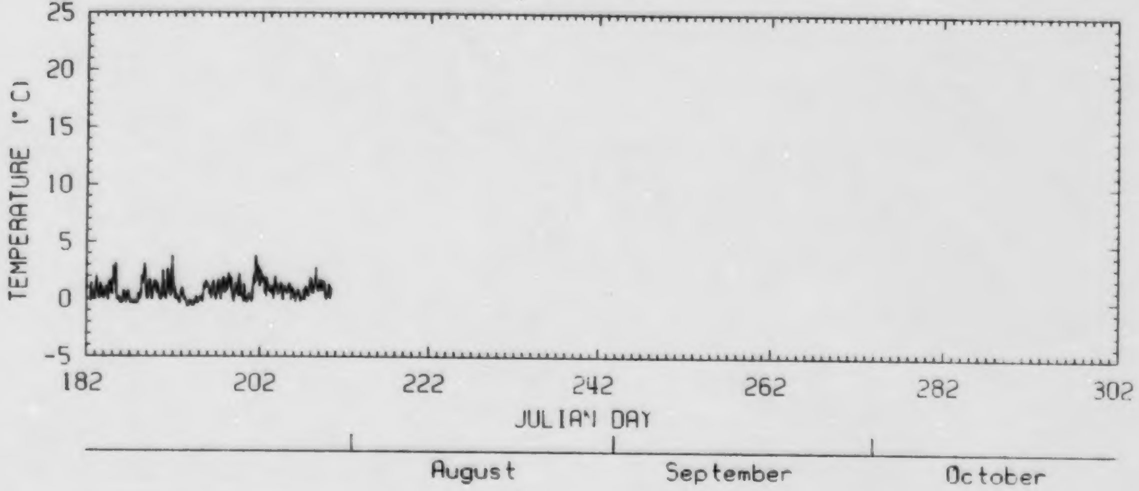
LATITUDE
Pouch Cove
LONGITUDE



Start: 1-JUL-1999 End: 29-JUL-1999 Inst. S/N:6441

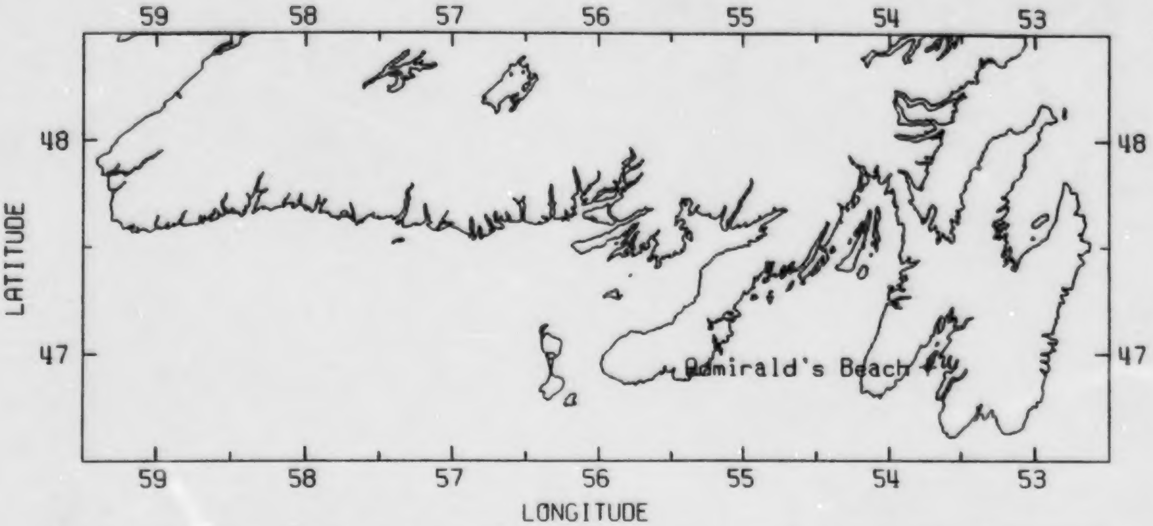
Appendix 11. Time Series Plots and Monthly Statistics from Unit Area 3Lq.

THERMOGRAPH DATA SUMMARY

STATION NAME:	Admirald's Beach
STATION NUMBER:	233
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006432
LATITUDE:	46.94° N
LONGITUDE:	53.73° W
INSTRUMENT DEPTH:	42 m
WATER DEPTH:	44 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	20-JUL-1998 20:00 GMT
RECOVERY DATE/TIME:	6-NOV-1998 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	0.80	202	1.70	204	1.17	0.18	14.0	0.0	268
AUG-1998	0.20	228	1.60	216	0.72	0.33	22.3	0.0	744
SEP-1998	0.00	246	10.10	249	2.28	1.95	68.3	7.3	720
OCT-1998	0.40	274	9.60	275	4.21	2.50	130.6	33.8	744
NOV-1998	2.60	309	6.10	308	4.75	0.75	27.9	4.4	133
Total Period	0.00	246	10.10	249	2.40	2.25	263.1	45.5	2609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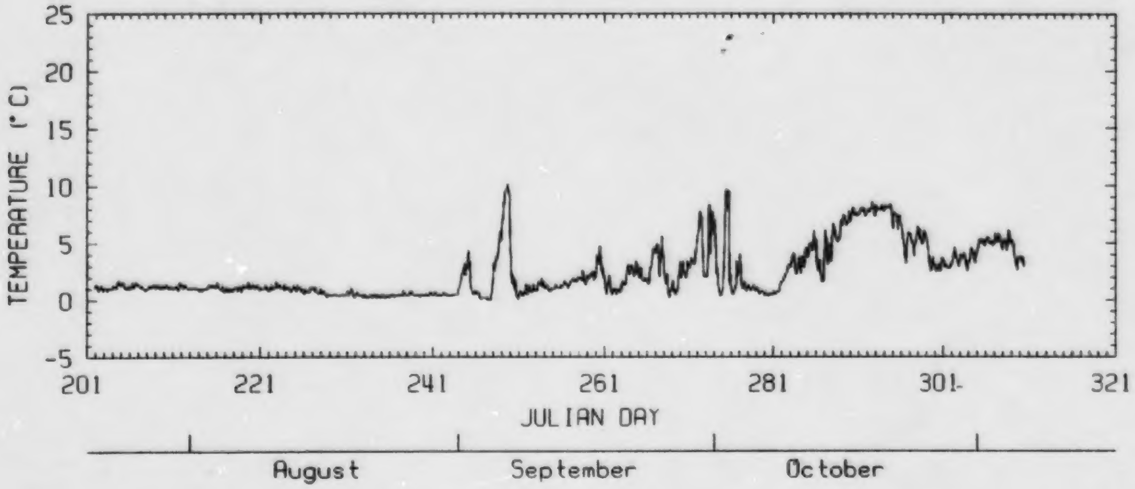
LATITUDE
LONGITUDE
Admirald's Beach



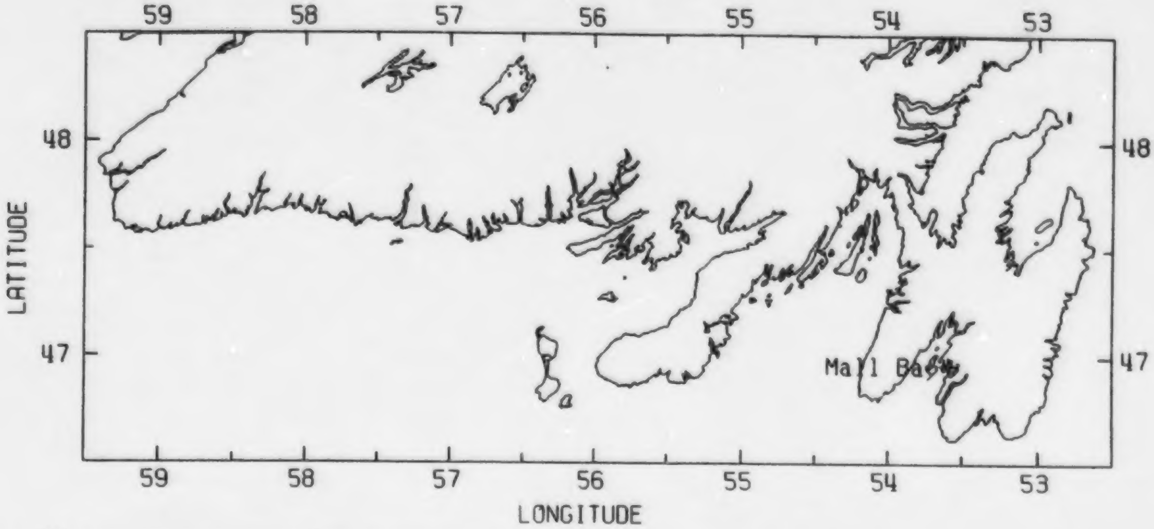
Start: 20-JUL-1998 End: 6-NOV-1998 Inst. S/N:6432

THERMOGRAPH DATA SUMMARY

STATION NAME:	Mall Bay
STATION NUMBER:	221
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008AOA
LATITUDE:	46.96° N
LONGITUDE:	53.59° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	22 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	29-APR-1998 09:00 GMT
RECOVERY DATE/TIME:	2-NOV-1998 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	0.55	132	6.90	151	3.83	1.99	118.0	23.0	732
JUN-1998	2.80	180	11.65	170	7.31	2.02	219.2	99.4	720
JUL-1998	5.00	211	15.70	212	9.90	2.54	307.0	183.0	744
AUG-1998	2.45	241	18.45	231	6.90	3.73	213.8	91.1	744
SEP-1998	1.50	247	12.70	259	9.91	1.81	297.3	178.0	720
OCT-1998	2.40	280	11.60	275	8.32	1.87	257.9	135.3	744
NOV-1998	7.60	305	8.45	305	8.04	0.22	16.1	8.1	39
Total Period	0.55	132	18.45	231	7.70	3.18	1429.2	718.0	4443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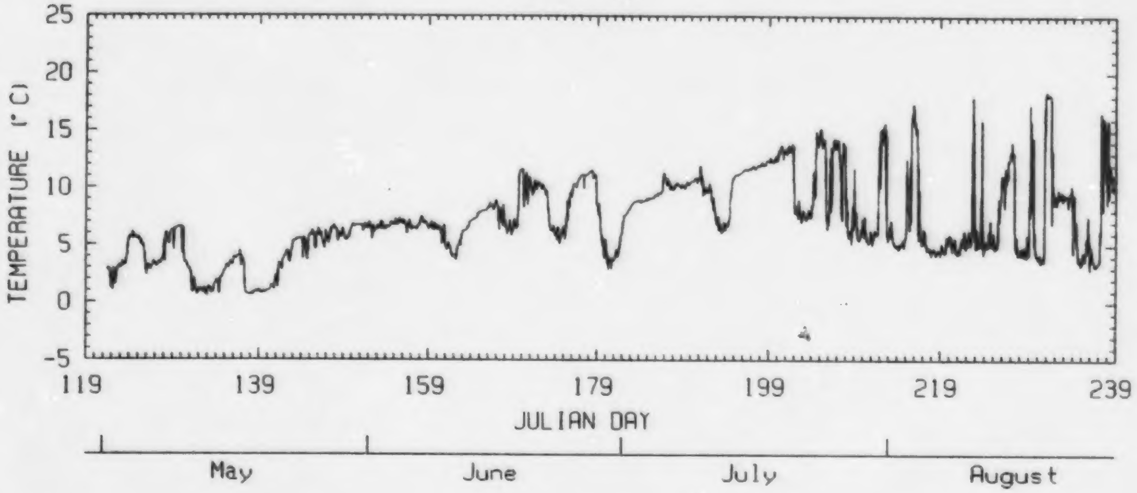
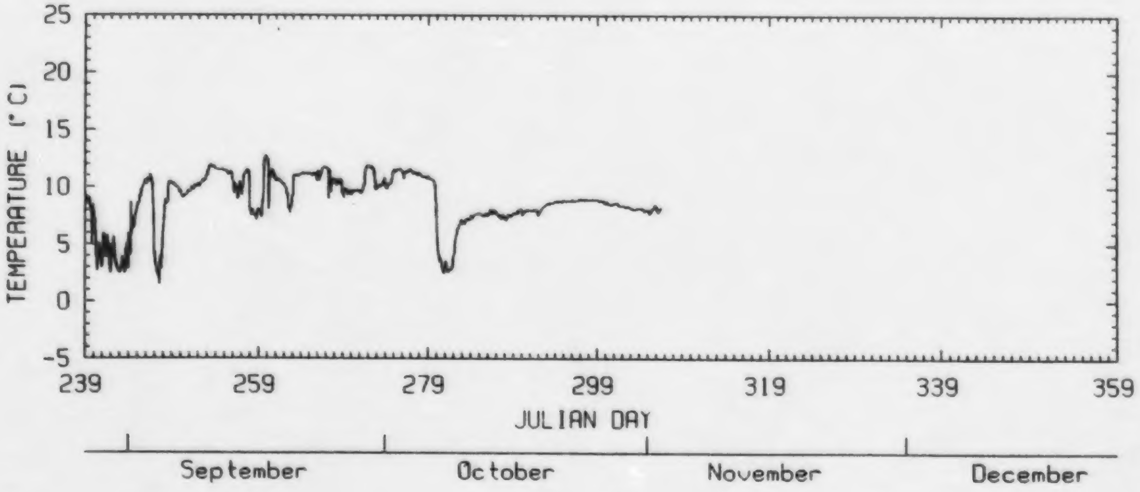
LATITUDE
LONGITUDE
Mall Bay





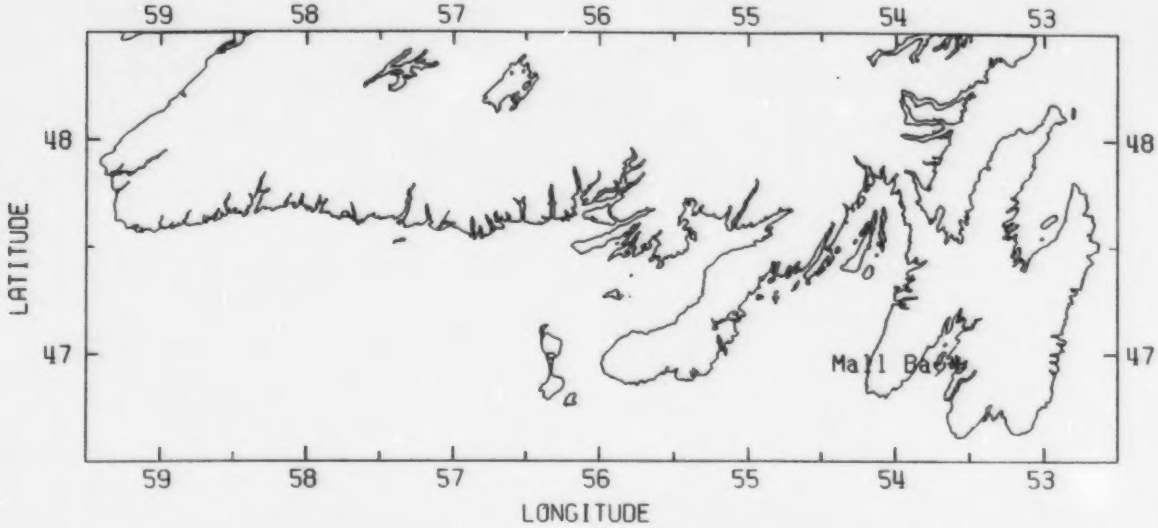
Start:29-APR-1998 End: 2-NOV-1998 Inst. S/N:8A0A

THERMOGRAPH DATA SUMMARY

STATION NAME:	Mall Bay
STATION NUMBER:	221
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008978
LATITUDE:	46.96° N
LONGITUDE:	53.59° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	22 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	30-APR-1999 08:00 GMT
RECOVERY DATE/TIME:	31-MAY-1999 05:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	2.15	137	8.95	151	6.12	1.39	190.4	66.6	714
Total Period	2.15	137	8.95	151	6.12	1.39	190.4	66.6	714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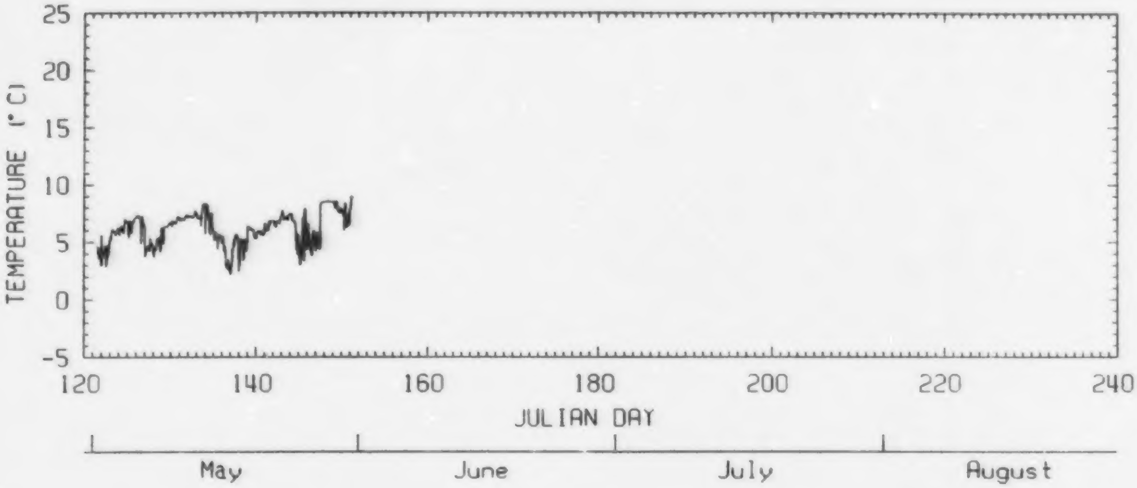
Mall Bay



Start: 30-APR-1999 End: 31-MAY-1999 Inst. S/N:8978

THERMOGRAPH DATA SUMMARY

STATION NAME: St. Croix Bay

STATION NUMBER: 230

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 006593

LATITUDE: 47.42° N

LONGITUDE: 53.88° W

INSTRUMENT DEPTH: 52 m

WATER DEPTH: 53 m

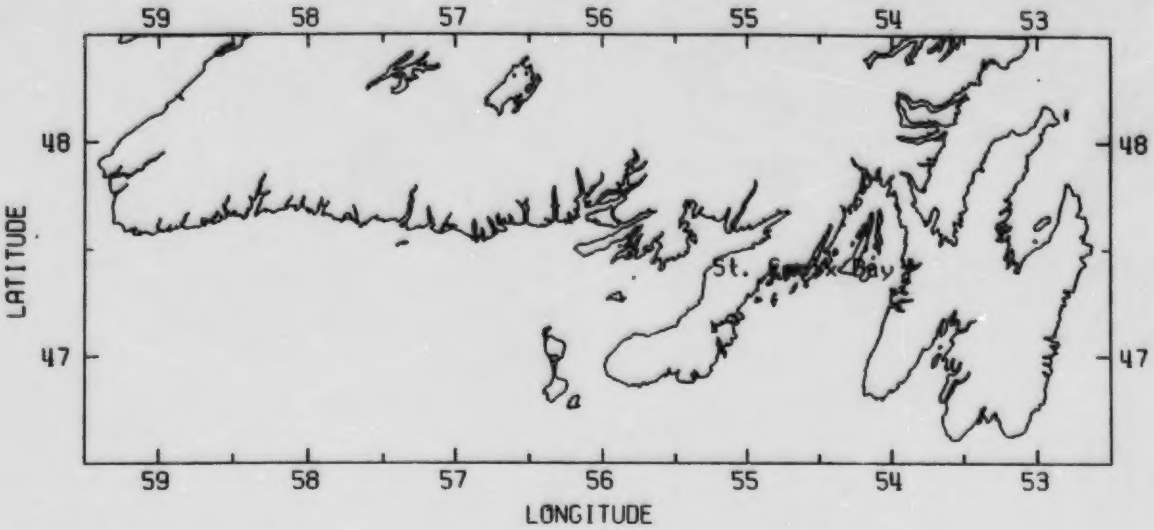
SAMPLING INTERVAL: 30 min.

DEPLOYMENT DATE/TIME: 15-OCT-1998 21:00 GMT

RECOVERY DATE/TIME: 26-OCT-1998 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
OCT-1998	0.80	297	8.55	298	5.17	2.65	58.8	18.0	517
Total Period	0.80	297	8.55	298	5.17	2.65	58.8	18.0	517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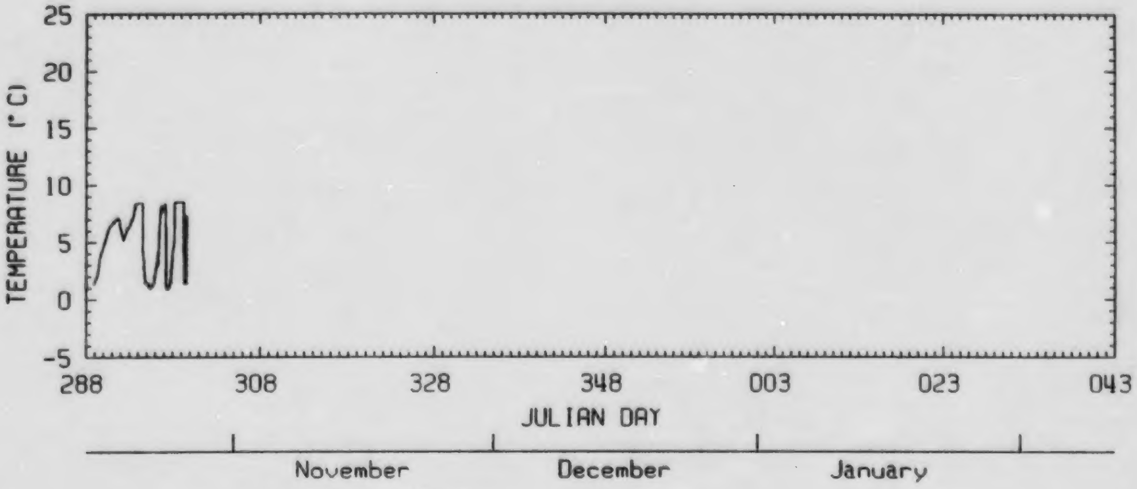


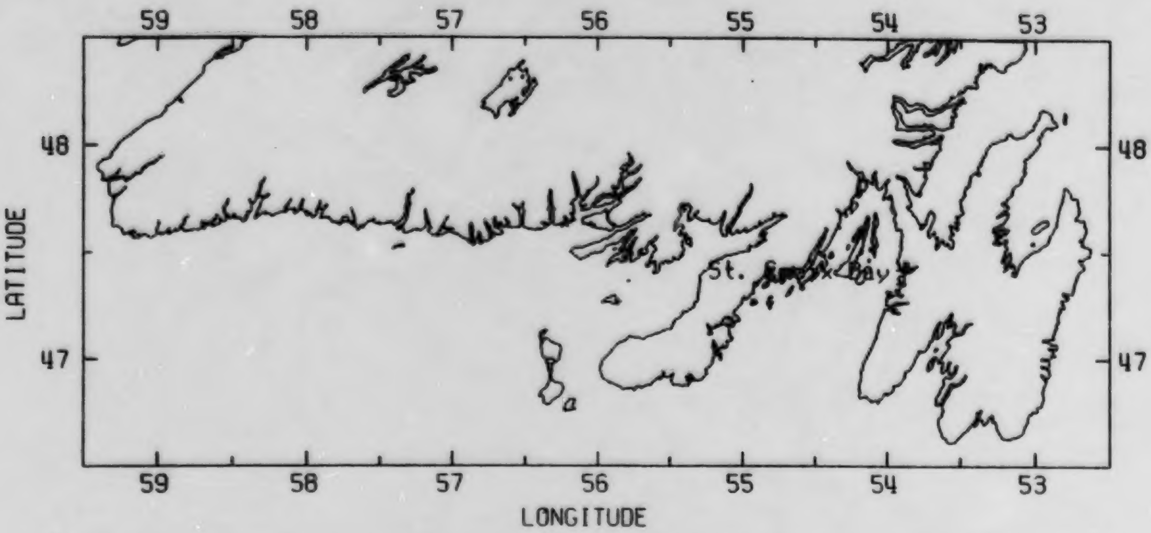
Start: 15-OCT-1998 End: 26-OCT-1998 Inst. S/N:6593

THERMOGRAPH DATA SUMMARY

STATION NAME: St. Croix Bay
STATION NUMBER: 230
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 007937
LATITUDE: 47.42° N
LONGITUDE: 53.88° W
INSTRUMENT DEPTH: 52 m
WATER DEPTH: 53 m
SAMPLING INTERVAL: 30 min.
DEPLOYMENT DATE/TIME: 15-OCT-1998 21:00 GMT
RECOVERY DATE/TIME: 26-OCT-1998 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
OCT-1998	0.90	297	8.65	299	5.29	2.64	60.1	18.8	519
Total Period	0.90	297	8.65	299	5.29	2.64	60.1	18.8	519



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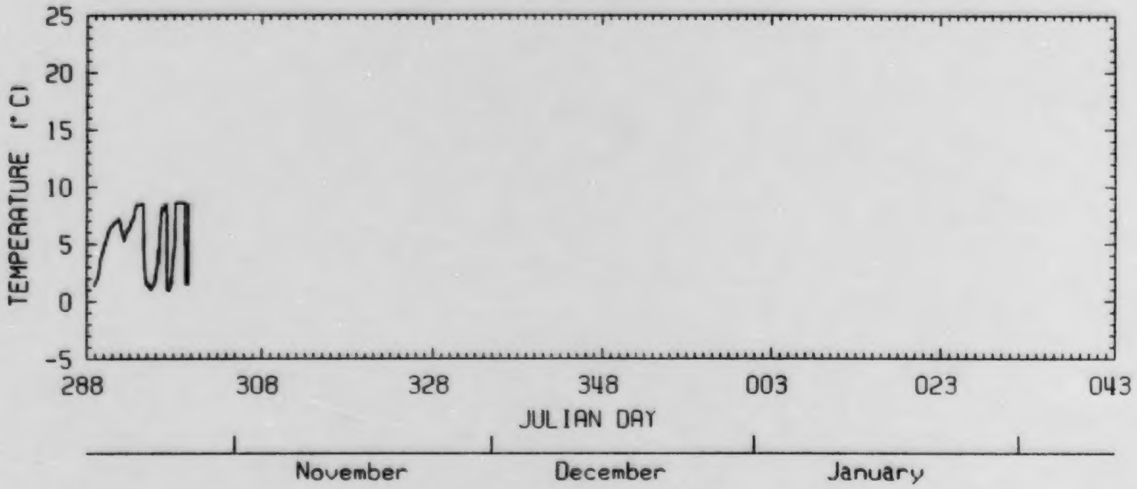


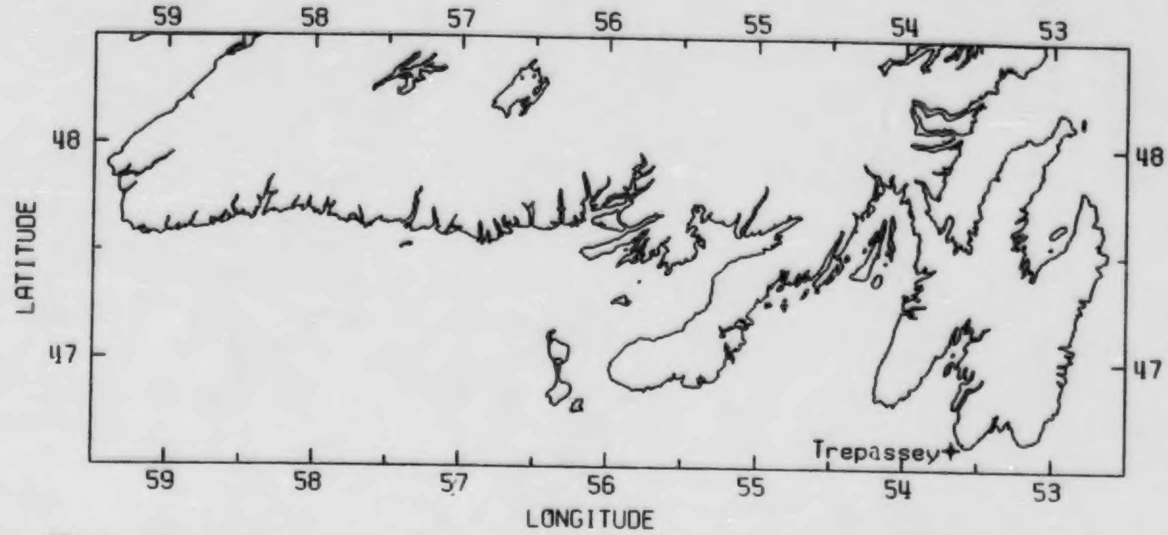
Start: 15-OCT-1998 End: 26-OCT-1998 Inst. S/N:7937

THERMOGRAPH DATA SUMMARY

STATION NAME:	Trepassey
STATION NUMBER:	239
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006442
LATITUDE:	46.60° N
LONGITUDE:	53.67° W
INSTRUMENT DEPTH:	47 m
WATER DEPTH:	48 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	24-JUN-1998 10:00 GMT
RECOVERY DATE/TIME:	3-SEP-1998 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	2.60	178	7.40	180	4.39	1.54	30.6	4.8	158
JUL-1998	1.60	208	7.50	195	3.24	1.55	100.5	11.7	744
AUG-1998	-0.10	230	3.80	243	0.83	0.57	25.8	0.0	744
SEP-1998	1.00	246	4.60	244	2.46	0.90	7.1	0.0	66
Total Period	-0.10	230	7.50	195	2.27	1.77	164.0	16.5	1712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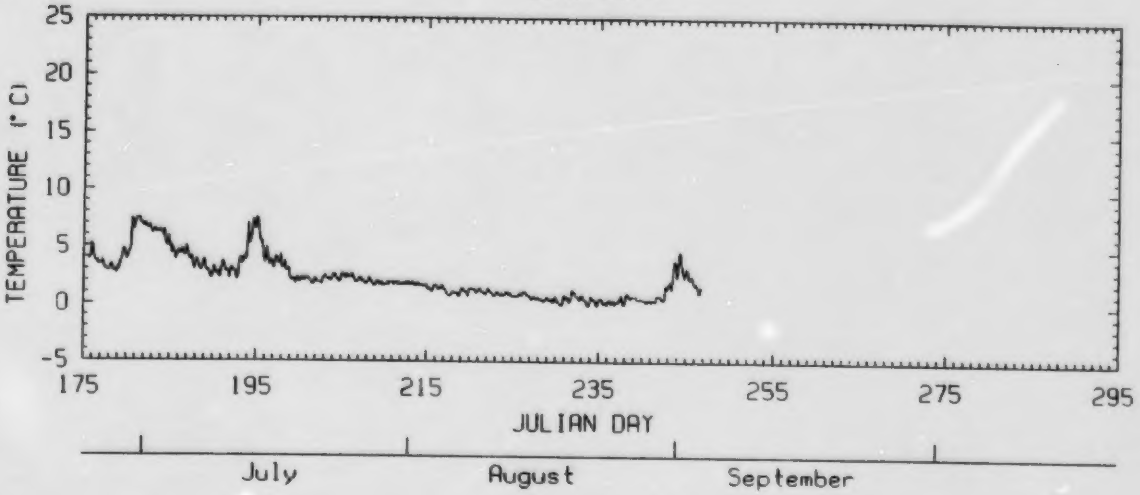


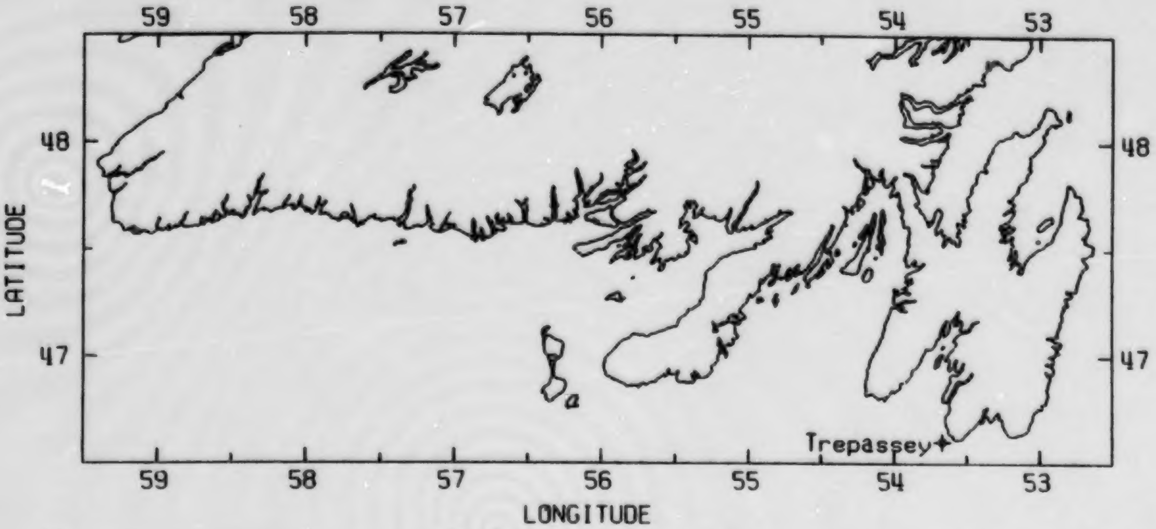
Start: 24-JUN-1998 End: 3-SEP-1998 Inst. S/N:6442

THERMOGRAPH DATA SUMMARY

STATION NAME:	Trepassey
STATION NUMBER:	239
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	003816
LATITUDE:	46.60° N
LONGITUDE:	53.67° W
INSTRUMENT DEPTH:	42 m
WATER DEPTH:	43 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	2-JUL-1999 10:00 GMT
RECOVERY DATE/TIME:	25-AUG-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	**MIN (°C)**	**DAY**	**MAX (°C)**	**DAY**	**MEAN (°C)**	**STD. DEV.**	**DEGREE DAY 0**	**DEGREE DAY 4**	**NO. SAMP.**
JUL-1999	1.70	184	7.20	210	3.48	1.24	103.9	8.8	710
AUG-1999	2.30	224	7.30	236	4.05	1.15	101.6	12.6	589
Total Period	1.70	184	7.30	236	3.74	1.23	205.5	21.5	1299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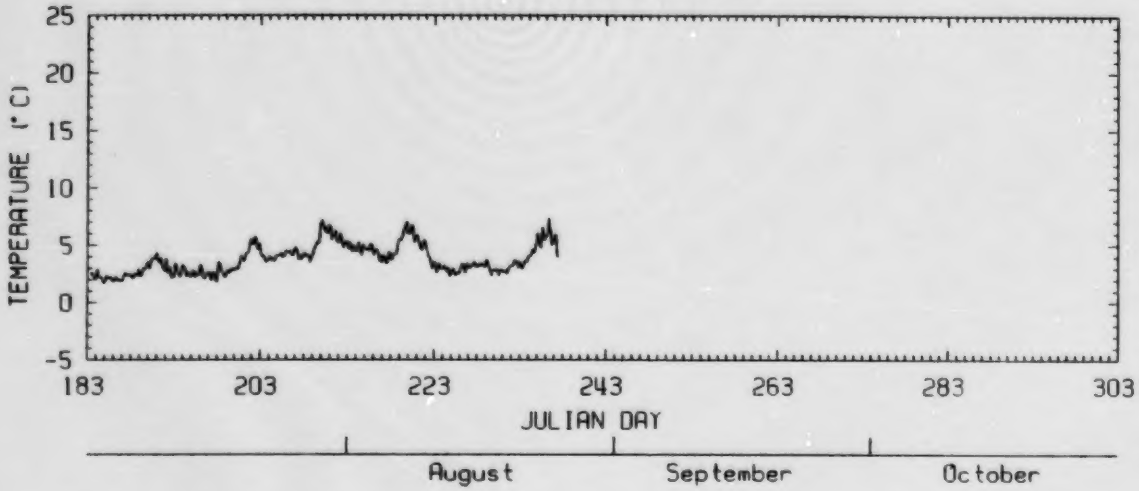


Start: 2-JUL-1999 End: 25-AUG-1999 Inst. S/N:3816

Appendix 12. Time Series Plots and Monthly Statistics from Unit Area 3PSc.

THERMOGRAPH DATA SUMMARY

STATION NAME: ARNOLD'S COVE

STATION NUMBER: 127

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 004330

LATITUDE: 47.75° N

LONGITUDE: 54.00° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

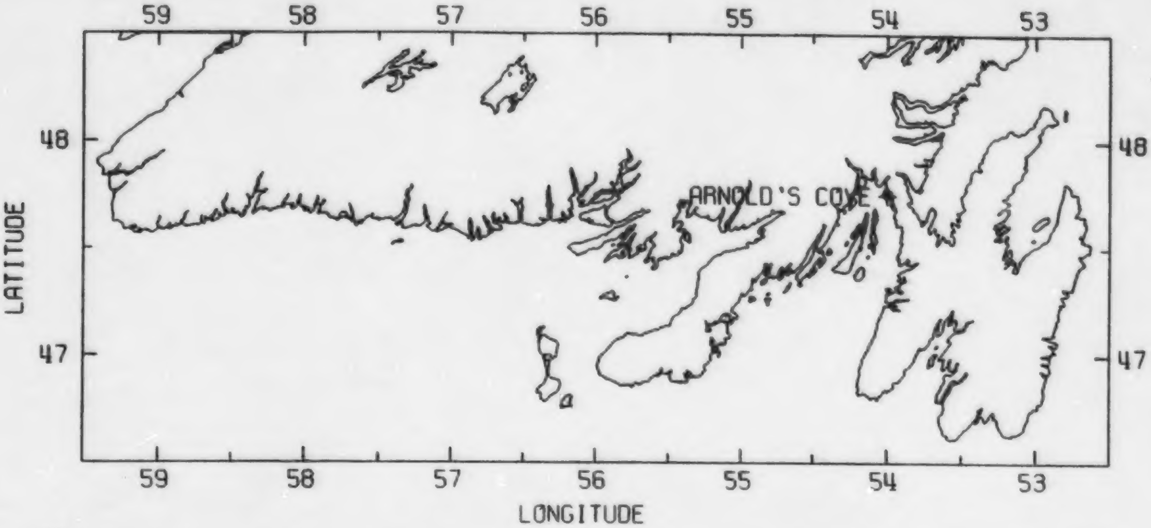
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 17-FEB-1998 15:00 GMT

RECOVERY DATE/TIME: 22-MAY-1998 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
FEB-1998	-0.55	49	0.25	57	-0.09	0.21	0.5	0.0	273
MAR-1998	-0.25	82	1.05	90	0.38	0.27	11.9	0.0	744
APR-1998	0.05	95	3.55	115	1.41	0.97	42.2	0.0	720
MAY-1998	-0.25	139	6.25	128	3.07	1.75	67.7	6.0	520
Total Period	-0.55	49	6.25	128	1.27	1.51	122.3	6.0	2257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LATITUDE
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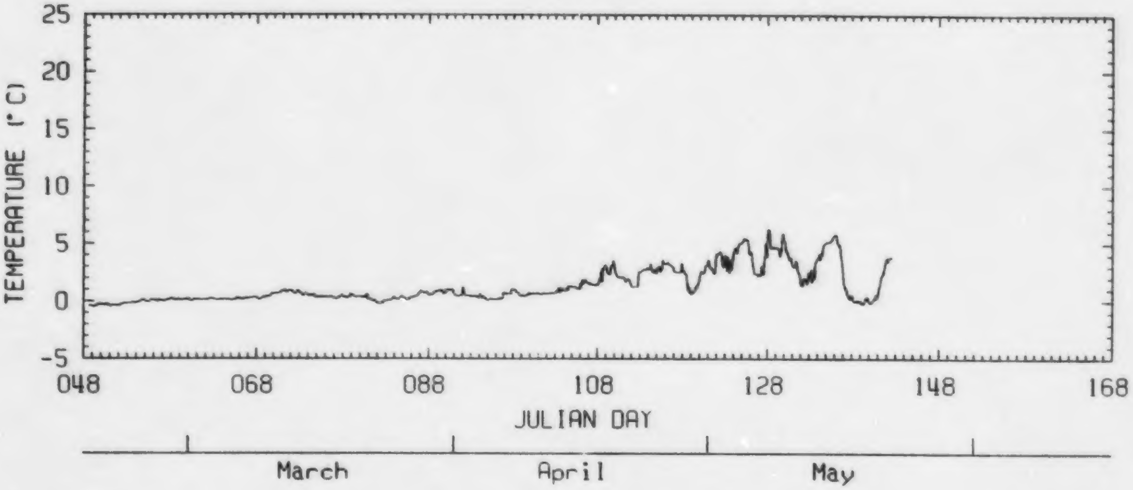
ARNOLD'S COVE



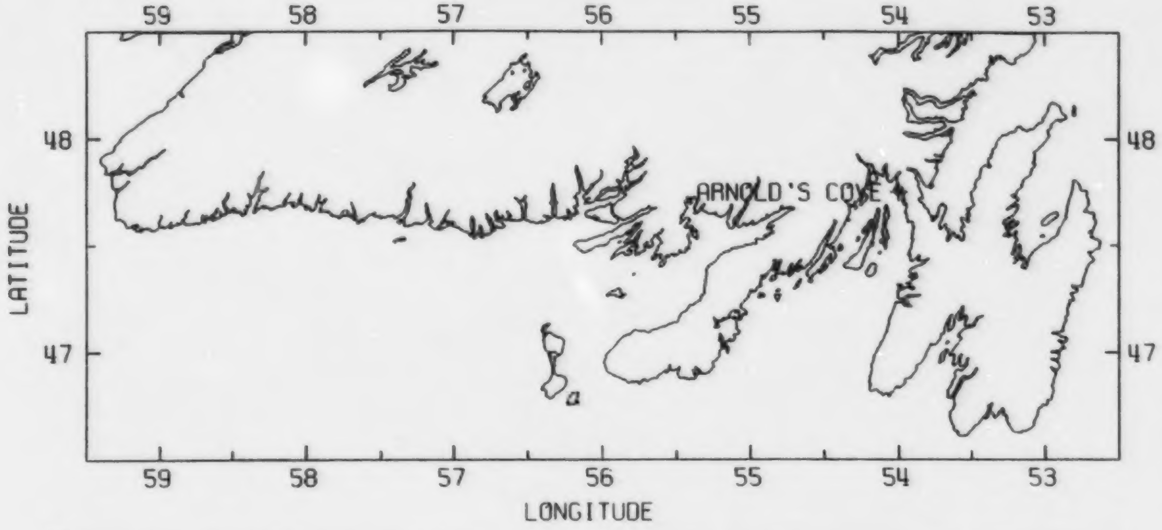
Start: 17-FEB-1998 End: 22-MAY-1998 Inst. S/N:4330

THERMOGRAPH DATA SUMMARY

STATION NAME:	ARNOLD'S COVE
STATION NUMBER:	127
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005475
LATITUDE:	47.75° N
LONGITUDE:	54.00° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	23-MAY-1998 16:00 GMT
RECOVERY DATE/TIME:	22-SEP-1998 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	2.95	144	6.15	151	4.67	0.75	41.3	6.5	200
JUN-1998	3.00	180	11.90	176	7.62	2.29	228.7	109.2	720
JUL-1998	7.30	182	16.50	212	12.68	2.00	393.2	269.2	744
AUG-1998	6.40	243	19.25	231	17.33	1.89	537.2	413.2	744
SEP-1998	3.70	247	17.15	245	11.65	2.86	256.2	168.2	519
Total Period	2.95	144	19.25	231	11.89	4.52	1456.6	966.3	2927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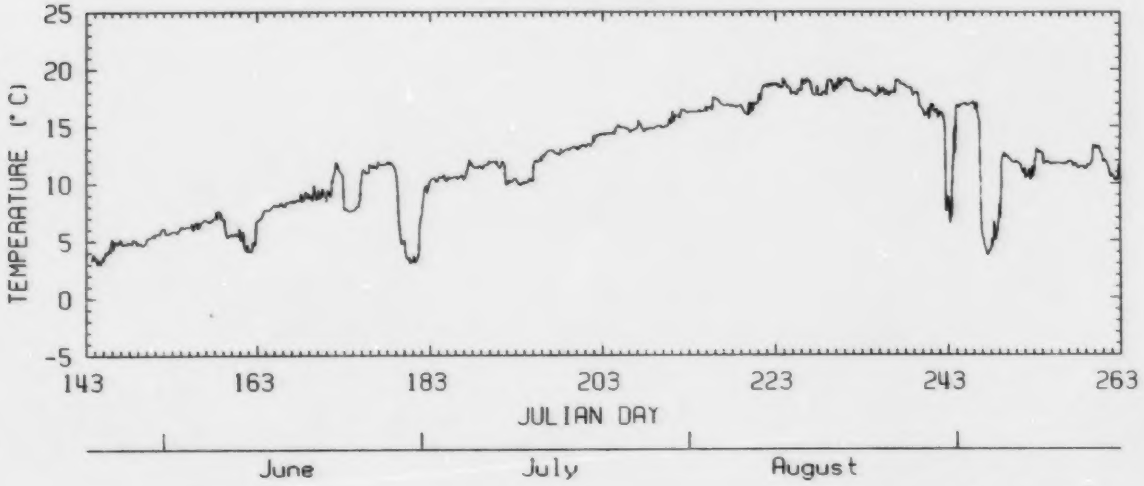
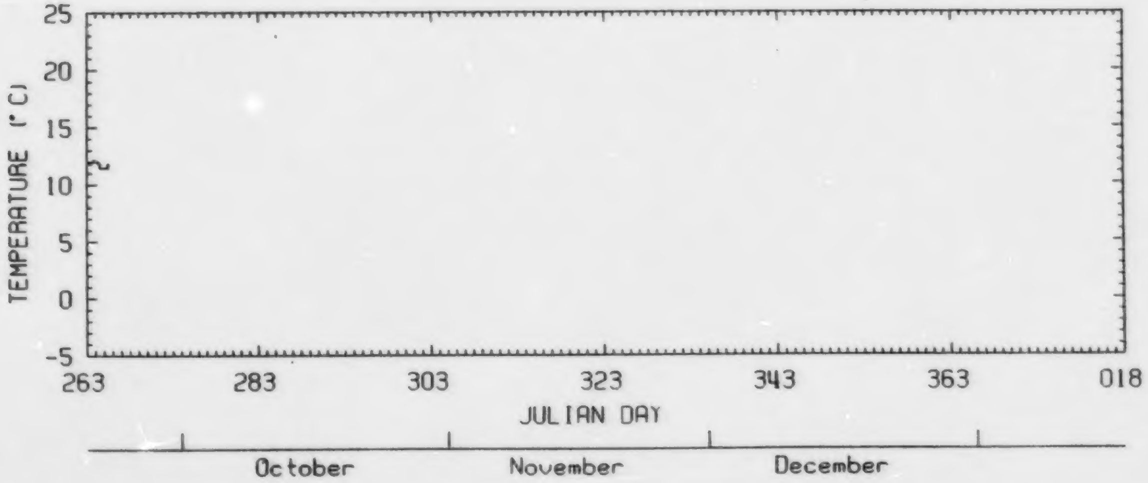
ARNOLD'S COVE





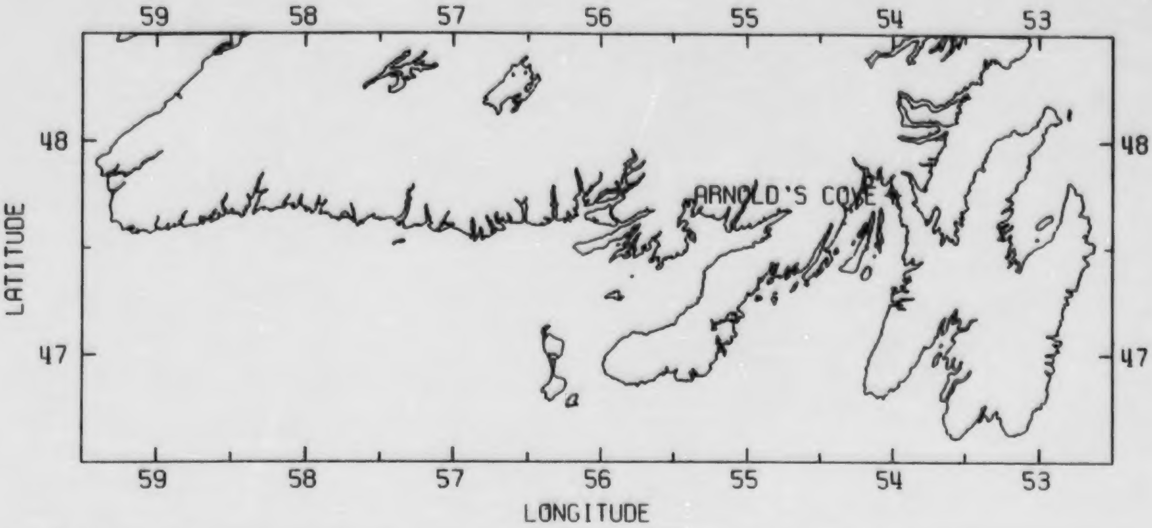
Start:23-MAY-1998 End:22-SEP-1998 Inst. S/N:5475

THERMOGRAPH DATA SUMMARY

STATION NAME:	ARNOLD'S COVE
STATION NUMBER:	127
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008964
LATITUDE:	47.75° N
LONGITUDE:	54.00° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	23-MAY-1998 16:00 GMT
RECOVERY DATE/TIME:	22-SEP-1998 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	3.05	144	6.10	151	4.71	0.73	41.7	6.7	200
JUN-1998	3.30	181	11.95	172	7.71	2.26	231.3	111.3	720
JUL-1998	7.35	182	16.60	212	12.75	1.98	395.3	271.3	744
AUG-1998	6.60	243	19.30	223	17.39	1.83	539.1	415.1	744
SEP-1998	3.80	247	17.20	245	11.72	2.85	257.9	169.9	519
Total Period	3.05	144	19.30	223	11.96	4.51	1465.3	974.3	2927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ARNOLD'S COVE
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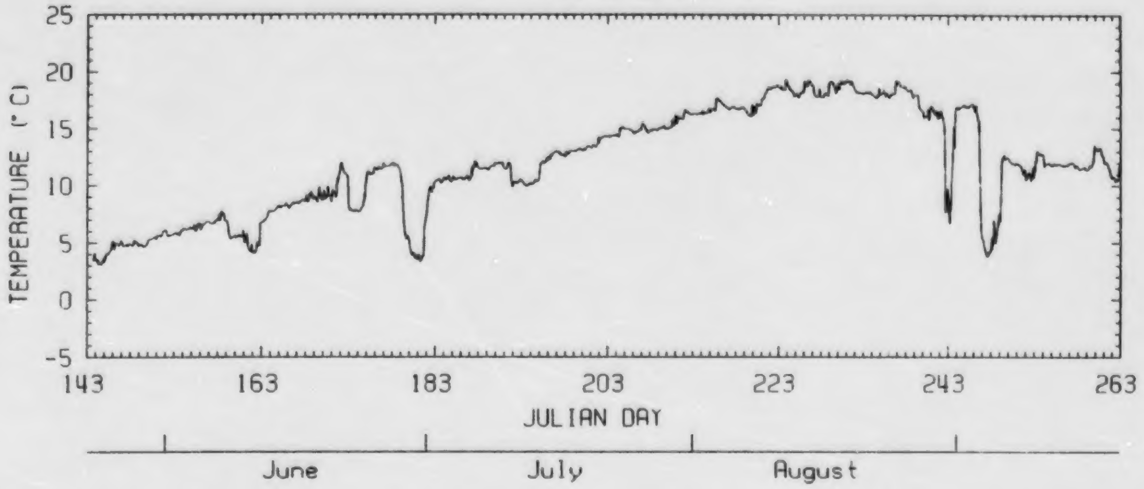
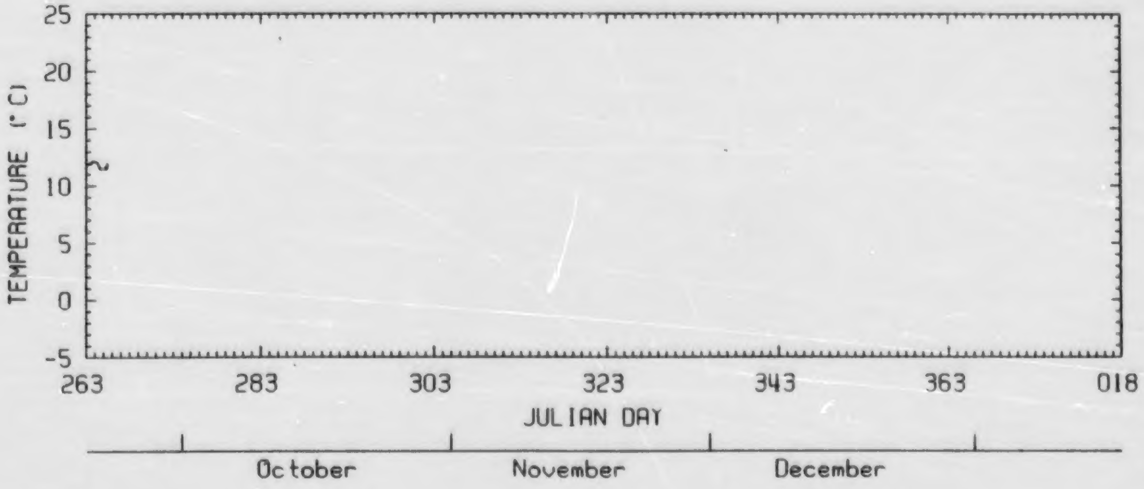




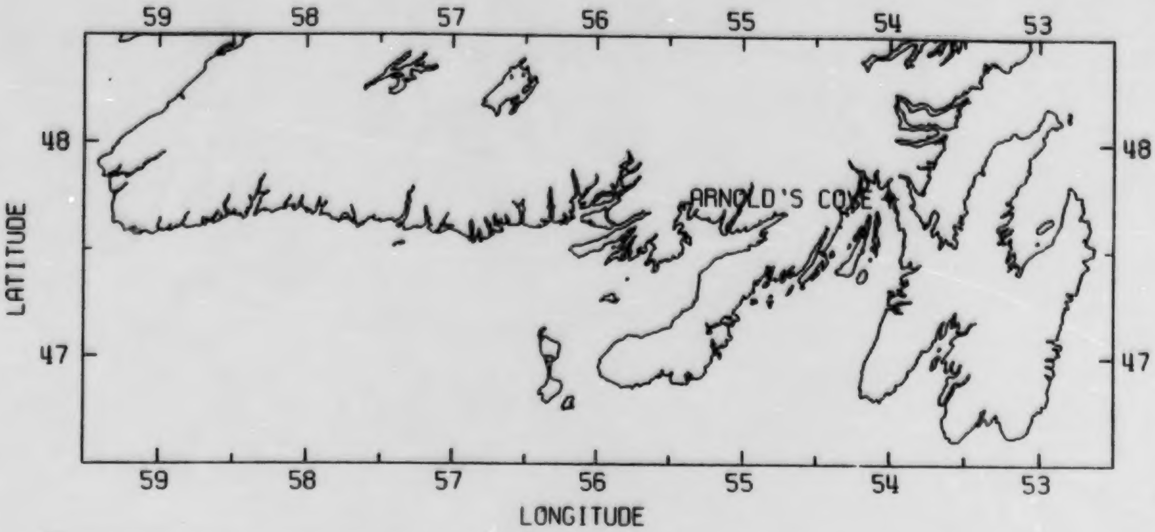
Start:23-MAY-1998 End:22-SEP-1998 Inst. S/N:8964

THERMOGRAPH DATA SUMMARY

STATION NAME:	ARNOLD'S COVE
STATION NUMBER:	127
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008959
LATITUDE:	47.75° N
LONGITUDE:	54.00° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	22-SEP-1998 15:00 GMT
RECOVERY DATE/TIME:	28-FEB-1999 05:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1998	10.90	273	12.45	272	11.86	0.33	106.9	70.9	201
OCT-1998	1.00	280	12.45	275	8.06	2.29	250.0	127.3	744
NOV-1998	3.60	326	8.15	308	6.58	1.05	196.7	76.7	672
DEC-1998	1.10	361	5.40	335	3.16	1.17	97.9	5.7	744
JAN-1999	-0.10	12	1.95	5	0.93	0.34	28.7	0.0	744
FEB-1999	-0.95	35	1.00	40	0.24	0.32	7.6	0.0	654
Total Period	-0.95	35	12.45	272	4.26	3.71	687.8	280.6	3759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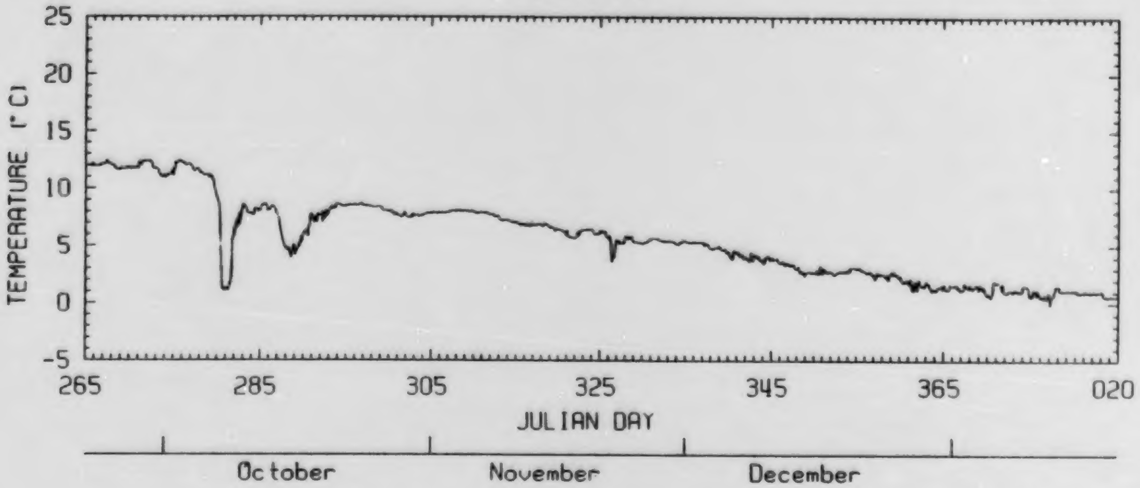
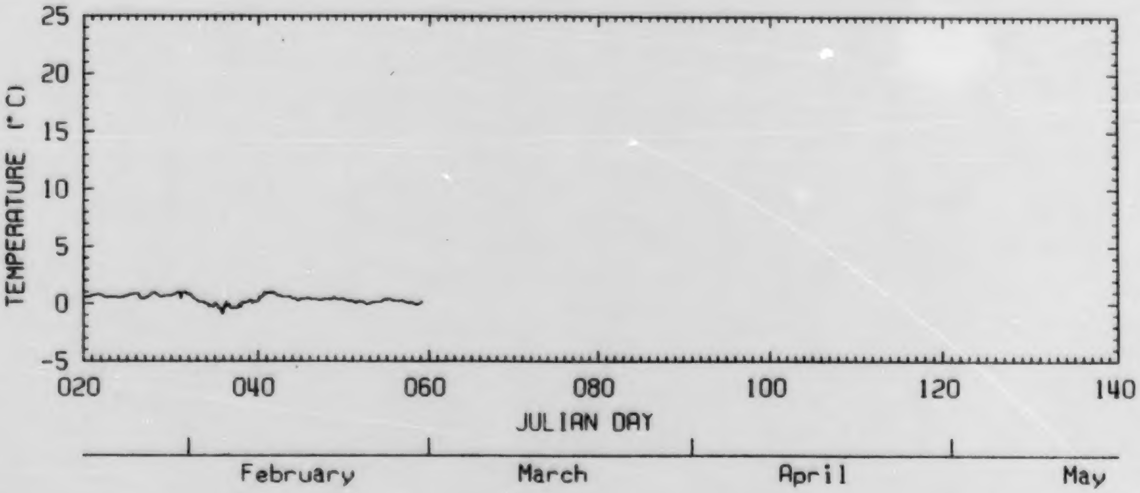
ARNOLD'S COVE





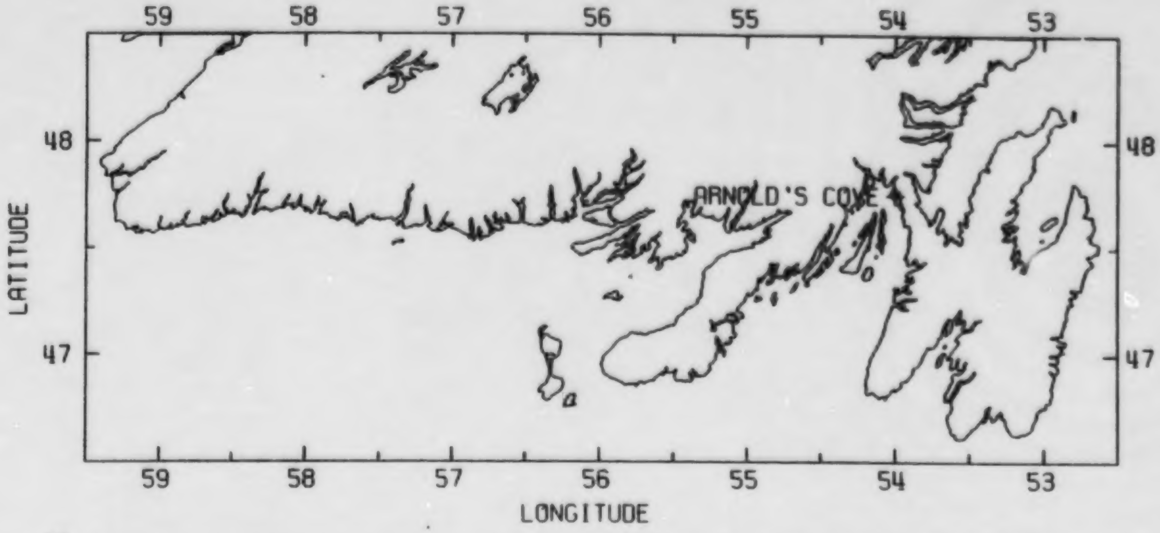
Start:22-SEP-1998 End:28-FEB-1999 Inst. S/N:8959

THERMOGRAPH DATA SUMMARY

STATION NAME:	ARNOLD'S COVE
STATION NUMBER:	127
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006645
LATITUDE:	47.75° N
LONGITUDE:	54.00° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	22-SEP-1998 15:00 GMT
RECOVERY DATE/TIME:	9-APR-1999 19:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
SEP-1998	10.90	273	12.35	267	11.82	0.35	106.5	70.5	201
OCT-1998	0.80	280	12.35	275	7.98	2.30	247.5	125.0	744
NOV-1998	3.50	324	7.95	307	6.42	1.06	192.5	72.5	720
DEC-1998	0.95	359	5.20	335	2.79	1.10	86.5	2.5	744
JAN-1999	-0.35	10	1.85	3	0.70	0.35	21.8	0.0	744
FEB-1999	-1.10	33	0.80	39	0.03	0.31	3.6	0.0	672
MAR-1999	-0.30	73	3.35	90	0.67	0.65	21.5	0.0	744
APR-1999	-0.15	97	3.20	91	0.68	0.85	6.1	0.0	212
Total Period	-1.10	33	12.35	267	3.39	3.63	685.9	270.4	4781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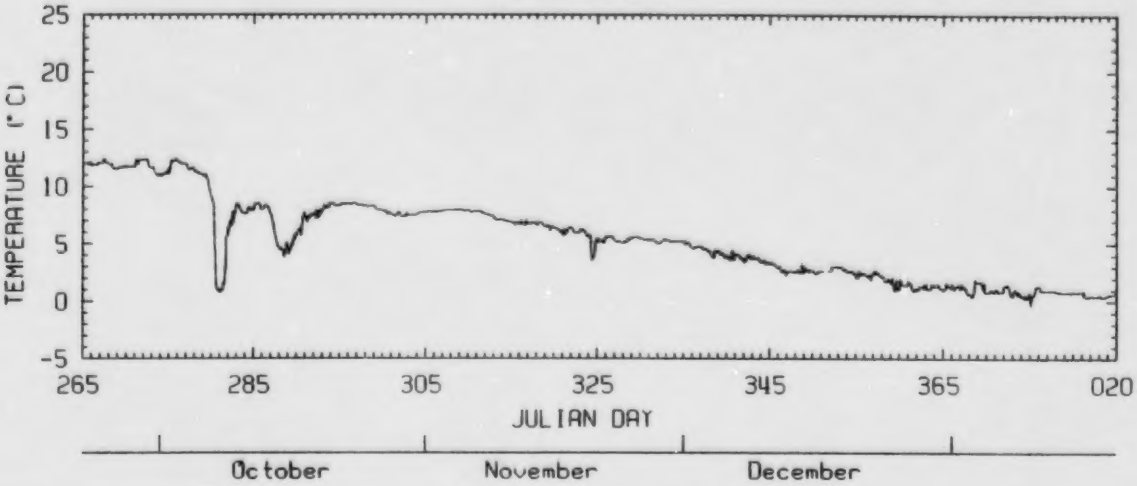
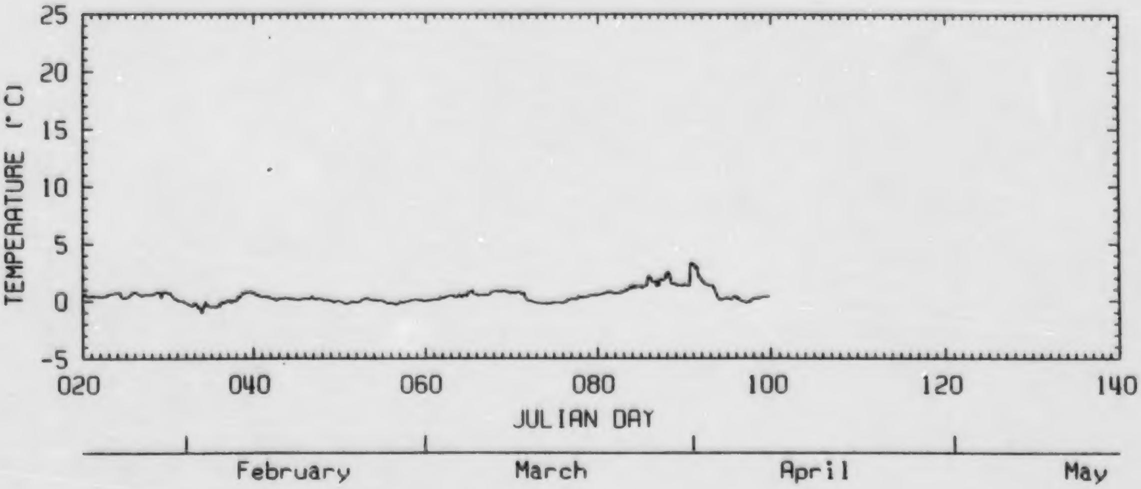
ARNOLD'S COVE





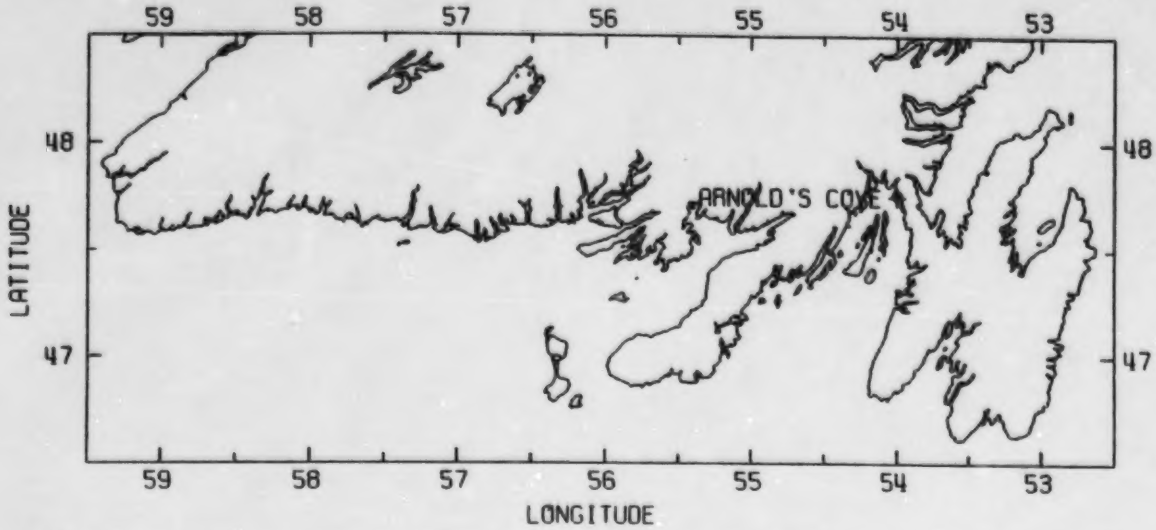
Start:22-SEP-1998 End: 9-APR-1999 Inst. S/N:6645

THERMOGRAPH DATA SUMMARY

STATION NAME:	ARNOLD'S COVE
STATION NUMBER:	127
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008968
LATITUDE:	47.75° N
LONGITUDE:	54.00° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	14-DEC-1998 16:00 GMT
RECOVERY DATE/TIME:	17-APR-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
DEC-1998	1.05	361	3.25	348	2.17	0.64	39.5	0.0	416
JAN-1999	-0.10	10	2.00	3	0.89	0.35	27.6	0.0	744
FEB-1999	-0.90	33	1.05	39	0.26	0.30	8.1	0.0	672
MAR-1999	0.00	73	3.50	90	0.88	0.62	27.3	0.0	744
APR-1999	0.15	97	3.35	91	1.03	0.64	17.7	0.0	402
Total Period	-0.90	33	3.50	90	0.94	0.76	120.3	0.0	2978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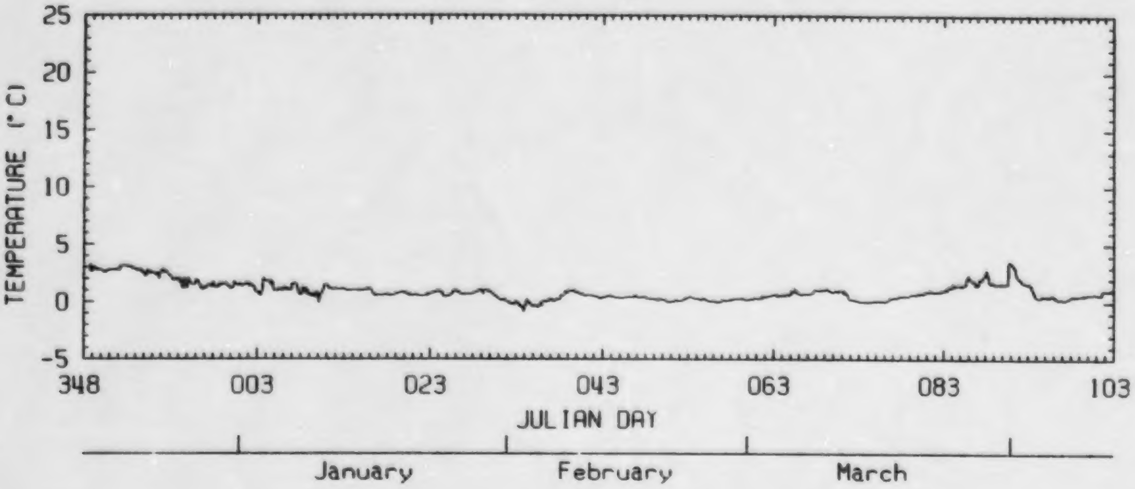
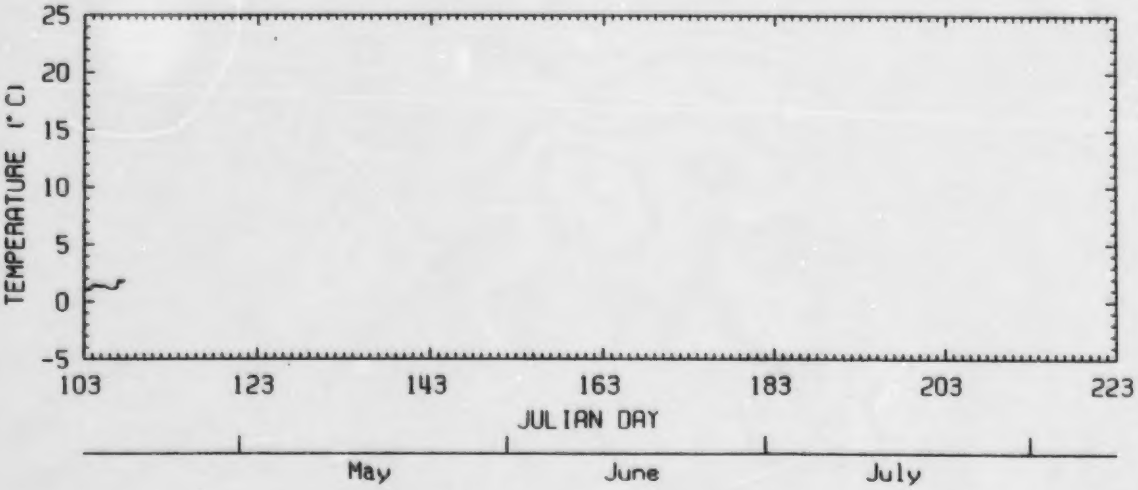




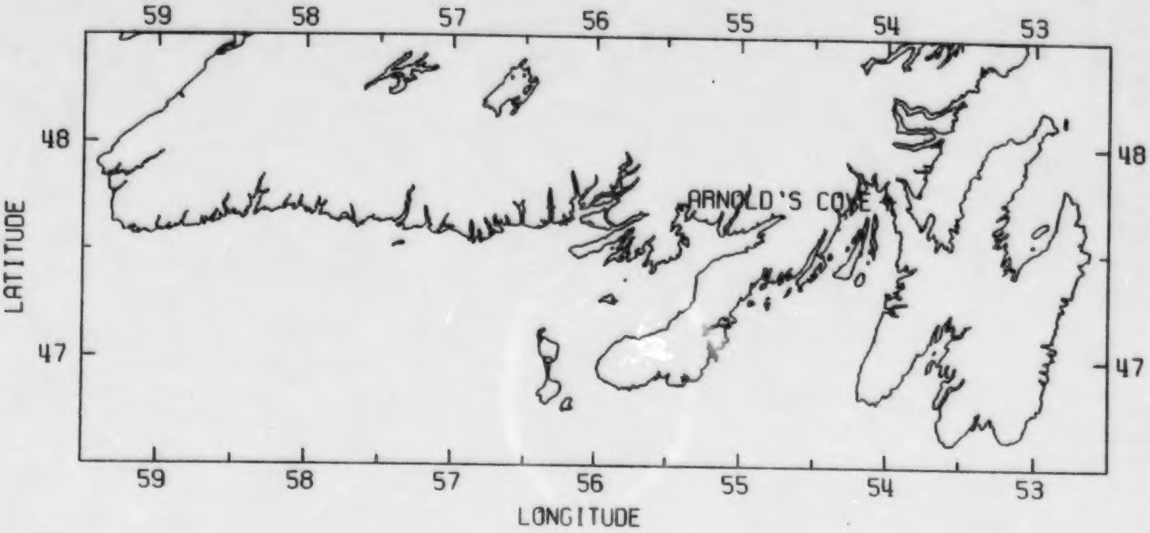
Start: 14-DEC-1998 End: 17-APR-1999 Inst. S/N: 8968

THERMOGRAPH DATA SUMMARY

STATION NAME:	ARNOLD'S COVE
STATION NUMBER:	127
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004347
LATITUDE:	47.75° N
LONGITUDE:	54.00° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	14-DEC-1998 13:00 GMT
RECOVERY DATE/TIME:	25-JUN-1999 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	**MIN (°C)**	**DAY**	**MAX (°C)**	**DAY**	**MEAN (°C)**	**STD. DEV.**	**DEGREE DAY 0**	**DEGREE DAY 4**	**NO. SAMP.**
DEC-1998	0.80	361	3.00	348	1.88	0.63	34.2	0.0	419
JAN-1999	-0.30	31	1.60	3	0.64	0.35	20.1	0.0	744
FEB-1999	-1.10	33	0.80	39	-0.04	0.30	2.6	0.0	672
MAR-1999	-0.30	73	3.20	90	0.65	0.64	20.6	0.0	744
APR-1999	-0.10	97	3.40	112	1.21	0.77	36.3	0.0	720
MAY-1999	0.80	121	7.60	147	5.00	1.78	154.9	44.8	744
JUN-1999	6.10	156	11.20	172	8.72	1.30	218.3	118.3	587
Total Period	-1.10	33	11.20	172	2.47	3.03	487.0	163.1	4630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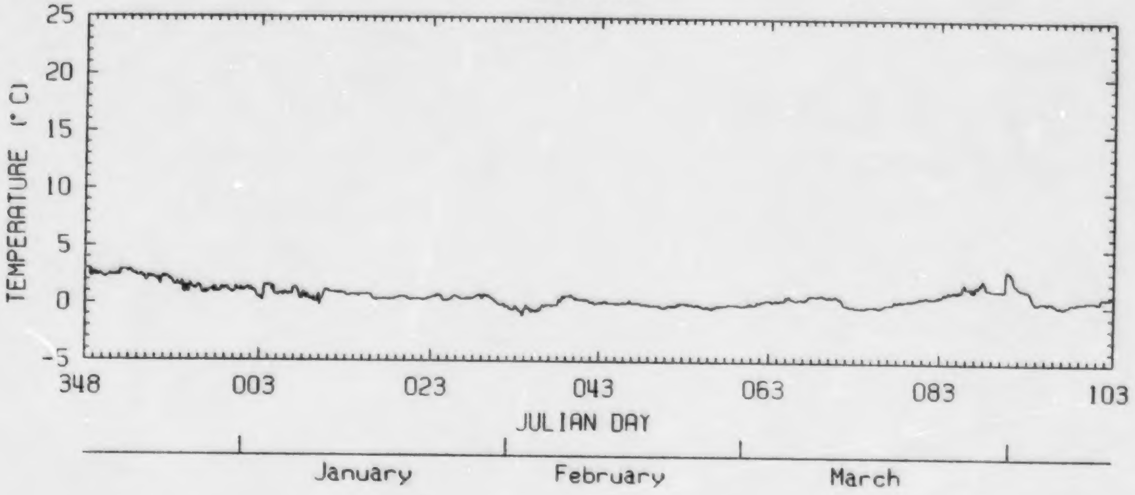
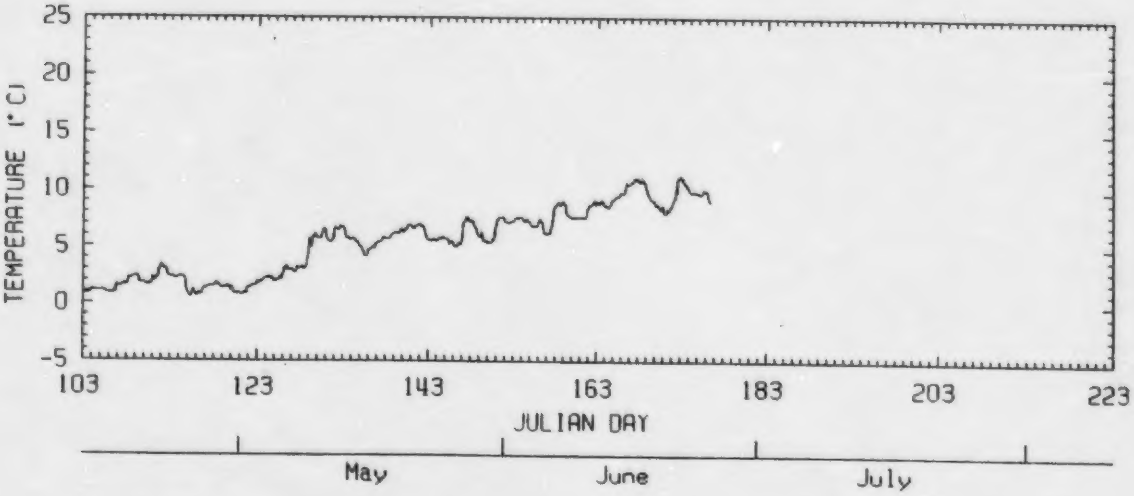
LATITUDE
LONGITUDE
ARNOLD'S COVE





Start:14-DEC-1998 End:25-JUN-1999 Inst. S/N:4347

THERMOGRAPH DATA SUMMARY

STATION NAME: ARNOLD'S COVE

STATION NUMBER: 127

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 003263

LATITUDE: 47.75° N

LONGITUDE: 54.00° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

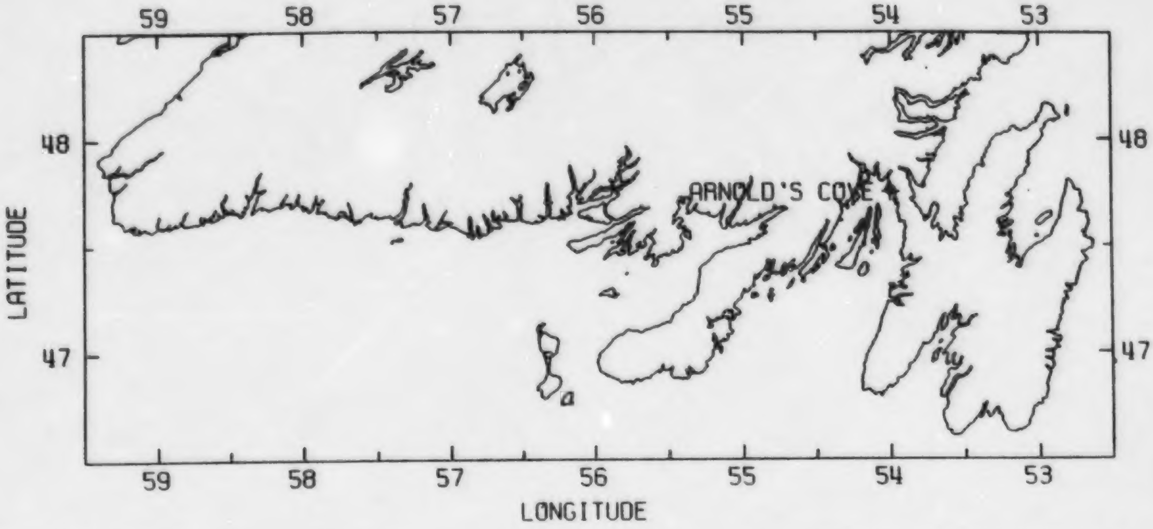
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 4-MAY-1999 18:00 GMT

RECOVERY DATE/TIME: 9-DEC-1999 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	2.30	125	8.25	151	5.98	1.39	164.9	56.8	654
JUN-1999	6.25	156	13.60	180	9.83	1.72	294.8	174.8	720
JUL-1999	12.10	182	17.25	207	15.11	1.37	468.3	344.3	744
AUG-1999	15.15	214	19.00	218	17.80	0.55	551.8	427.8	744
SEP-1999	6.95	248	18.30	246	15.52	1.68	465.5	345.5	720
OCT-1999	2.75	293	14.80	274	11.19	2.69	347.0	223.2	744
NOV-1999	5.70	325	8.30	305	7.00	0.85	210.1	90.1	720
DEC-1999	5.25	340	5.85	335	5.48	0.16	49.3	13.3	203
Total Period	2.30	125	19.00	218	11.64	4.53	2551.6	1675.8	5249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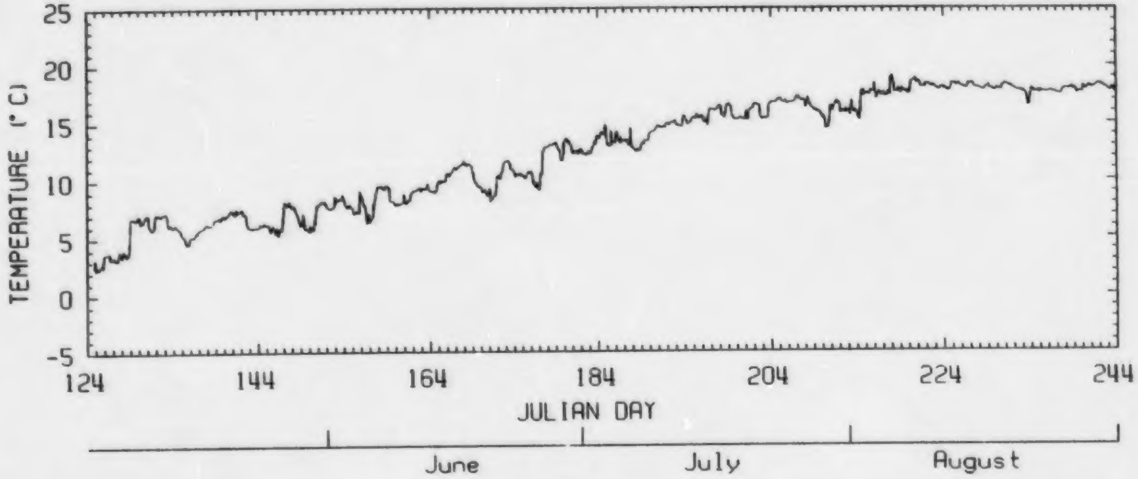
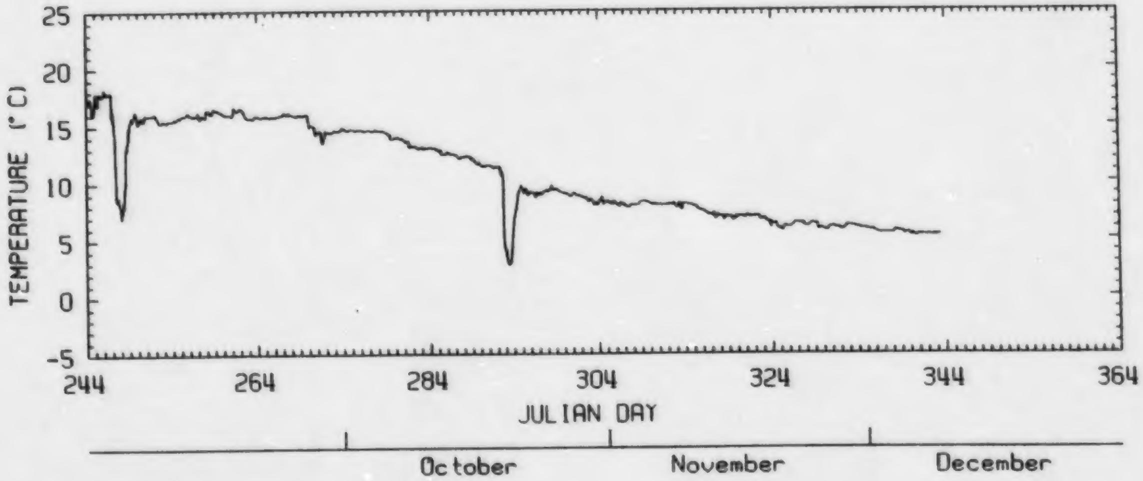
LATITUDE
ARNOLD'S COVE
LONGITUDE





Start: 4-MAY-1999 End: 9-DEC-1999 Inst. S/N:3263

THERMOGRAPH DATA SUMMARY

STATION NAME: ARNOLD'S COVE

STATION NUMBER: 127

INSTRUMENT TYPE: Minilog-T (Vemco)

INSTRUMENT S/N: 006442

LATITUDE: 47.75° N

LONGITUDE: 54.00° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

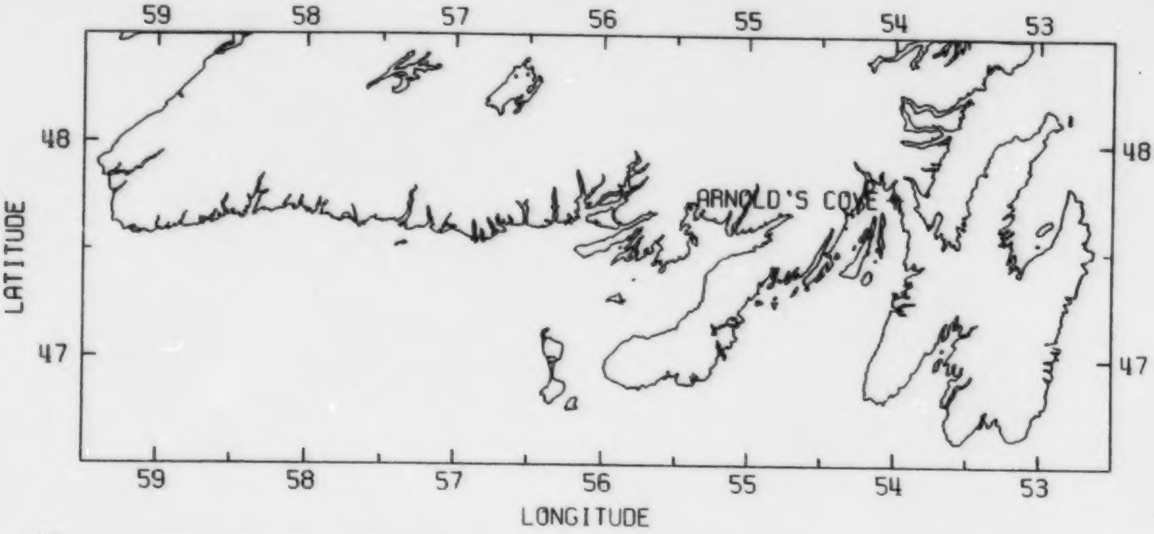
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 4-MAY-1999 18:00 GMT

RECOVERY DATE/TIME: 29-DEC-1999 23:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	2.20	125	8.10	147	5.88	1.39	162.3	54.8	654
JUN-1999	6.20	156	13.50	180	9.75	1.73	292.4	172.4	720
JUL-1999	12.00	182	17.20	207	15.04	1.41	466.2	342.2	744
AUG-1999	14.90	214	18.90	217	17.78	0.58	551.2	427.2	744
SEP-1999	6.80	248	18.10	246	15.46	1.75	463.7	343.7	720
OCT-1999	2.80	293	14.80	274	11.20	2.71	347.1	223.3	744
NOV-1999	5.80	325	8.30	305	7.07	0.82	212.0	92.0	720
DEC-1999	1.90	360	5.90	335	4.05	1.43	117.5	20.4	696
Total Period	1.90	360	18.90	217	10.91	4.91	2612.3	1676.0	5742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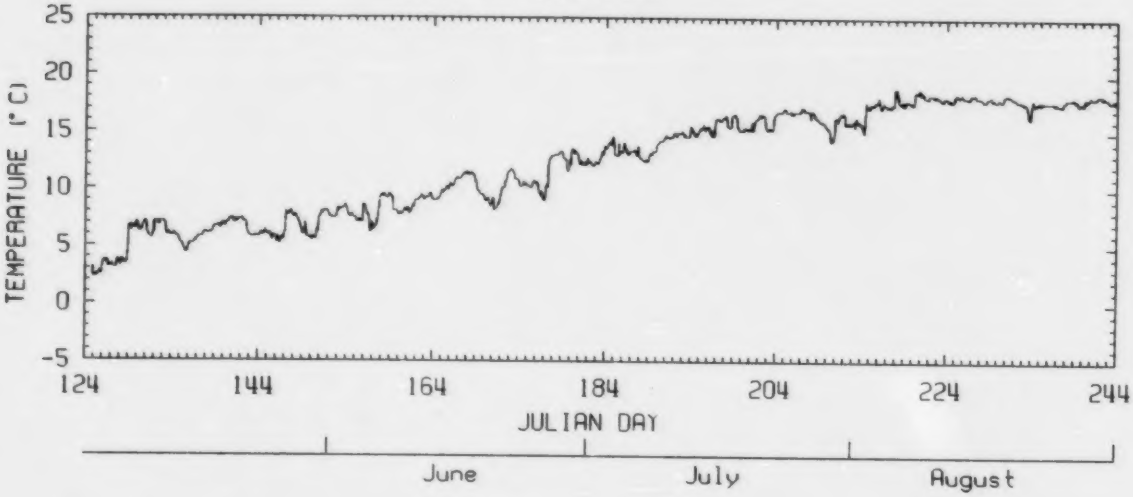
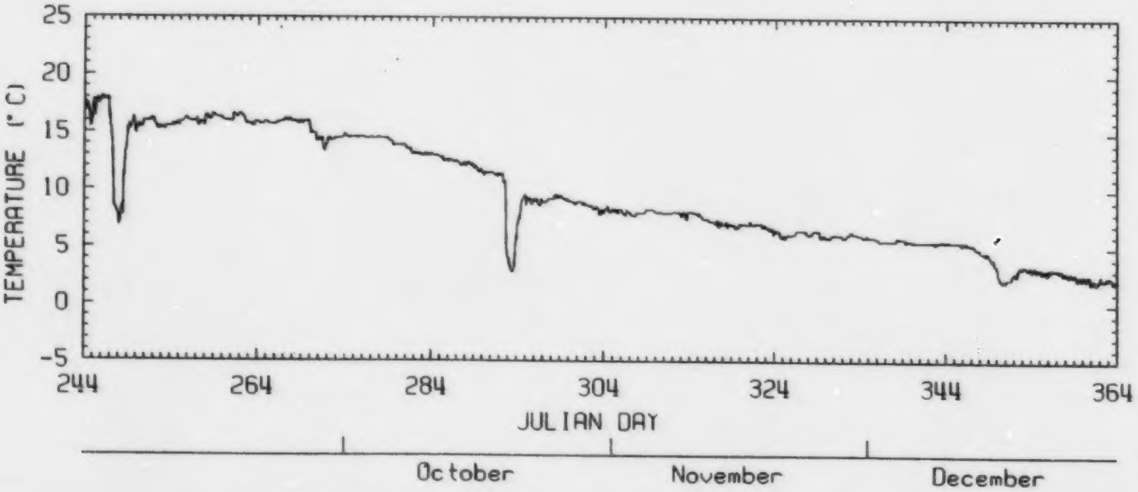
LATITUDE
LONGITUDE
ARNOLD'S COVE





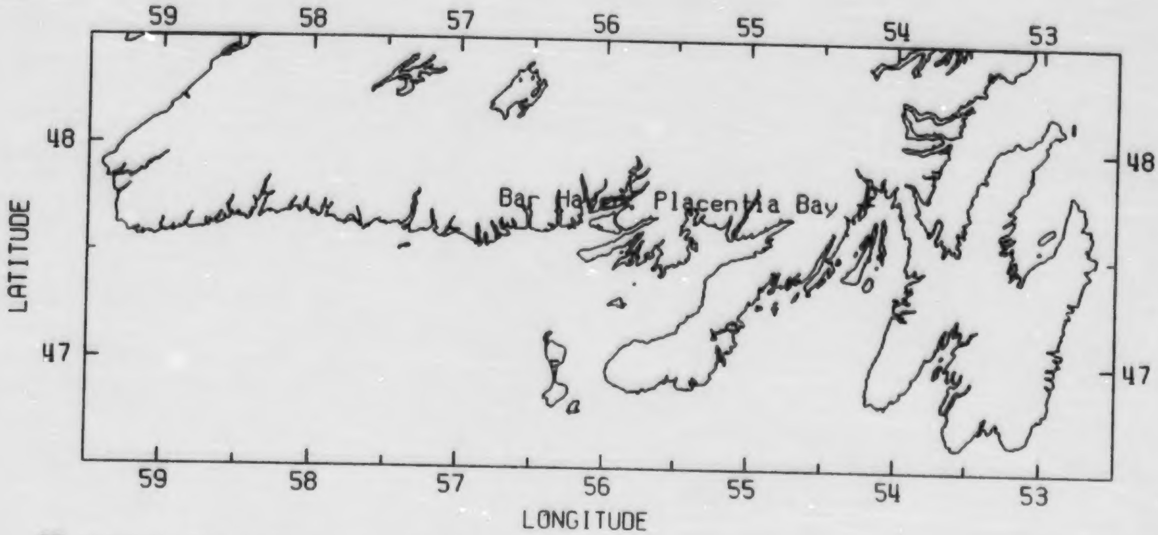
Start: 4-MAY-1999 End:29-DEC-1999 Inst. S/N:6442

THERMOGRAPH DATA SUMMARY

STATION NAME:	Bar Haven, Placentia Bay
STATION NUMBER:	242
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005456
LATITUDE:	47.76° N
LONGITUDE:	54.21° W
INSTRUMENT DEPTH:	40 m
WATER DEPTH:	40 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	1-MAY-1999 15:00 GMT
RECOVERY DATE/TIME:	7-MAY-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	0.25	121	1.45	127	0.71	0.41	4.9	0.0	146
Total Period	0.25	121	1.45	127	0.71	0.41	4.9	0.0	146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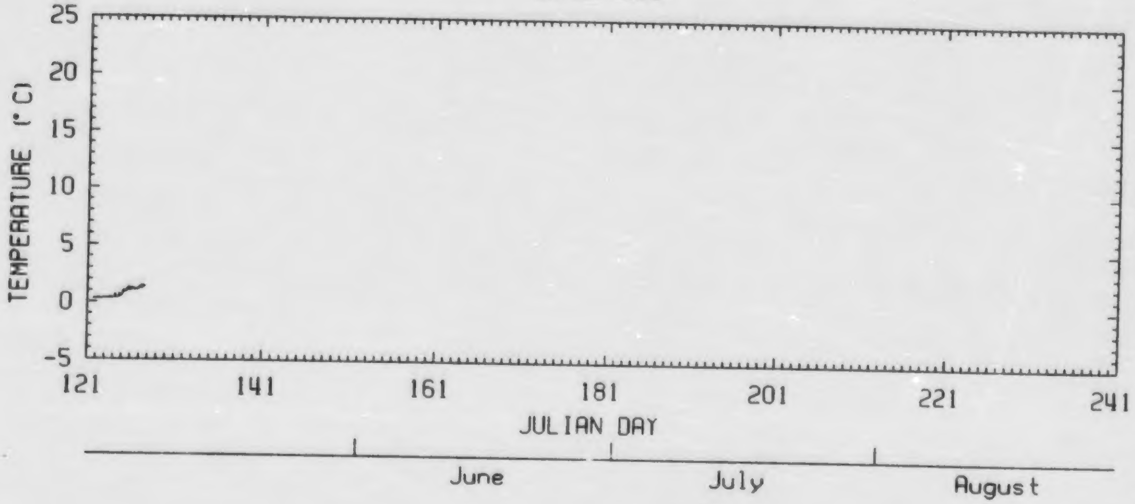
LATITUDE
Bar Haven, Placentia Bay
LONGITUDE



Start: 1-MAY-1999 End: 7-MAY-1999 Inst. S/N:5456

THERMOGRAPH DATA SUMMARY

STATION NAME: Bar Haven, Placentia Bay

STATION NUMBER: 242

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 008955

LATITUDE: 47.76° N

LONGITUDE: 54.21° W

INSTRUMENT DEPTH: 36 m

WATER DEPTH: 36 m

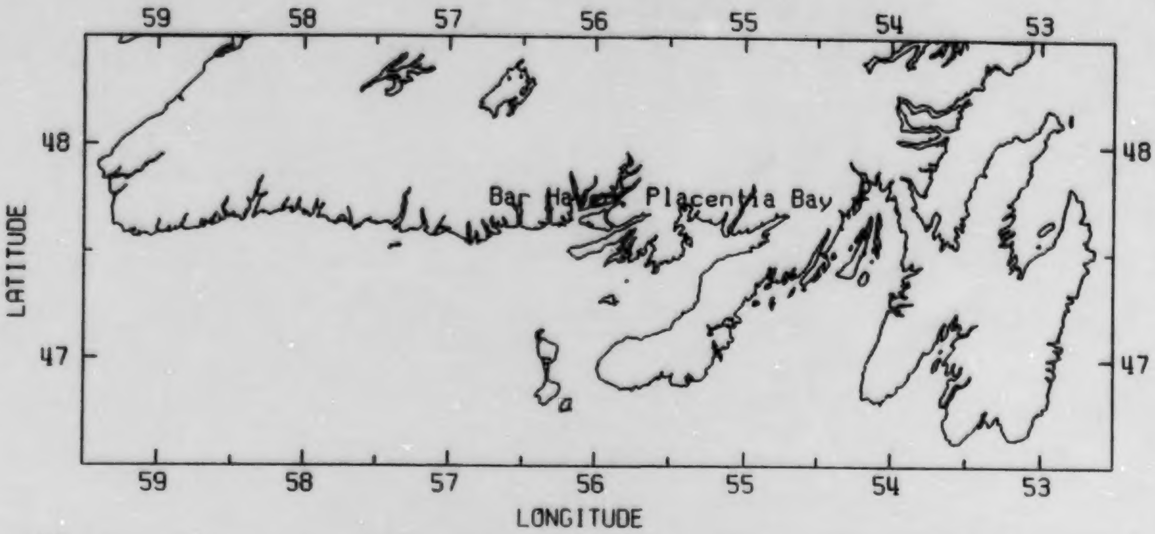
SAMPLING INTERVAL: 30 min.

DEPLOYMENT DATE/TIME: 12-NOV-1999 12:00 GMT

RECOVERY DATE/TIME: 17-NOV-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1999	5.50	319	9.50	321	7.11	0.72	42.9	18.9	241
Total Period	5.50	319	9.50	321	7.11	0.72	42.9	18.9	241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LATITUDE
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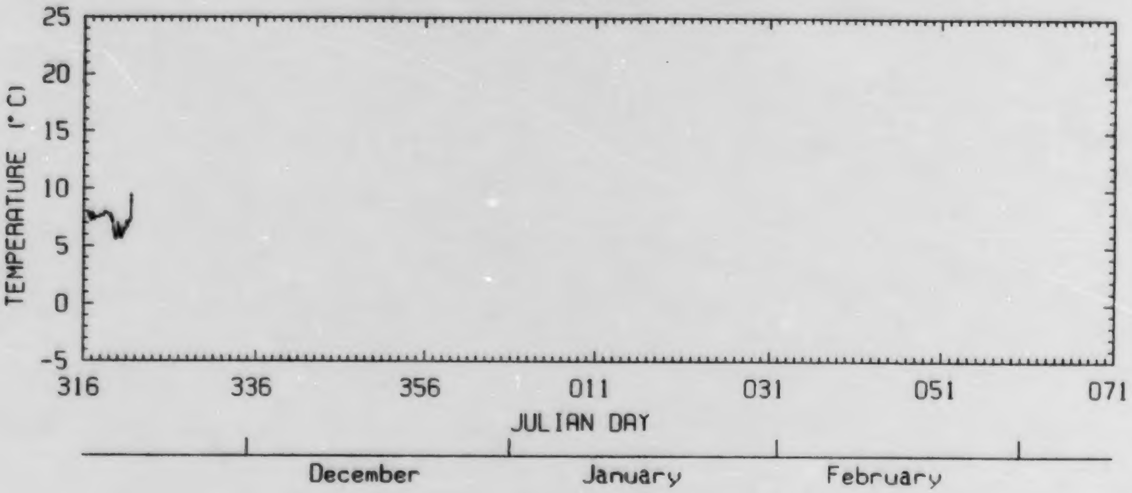
Bar Haven
Placentia Bay



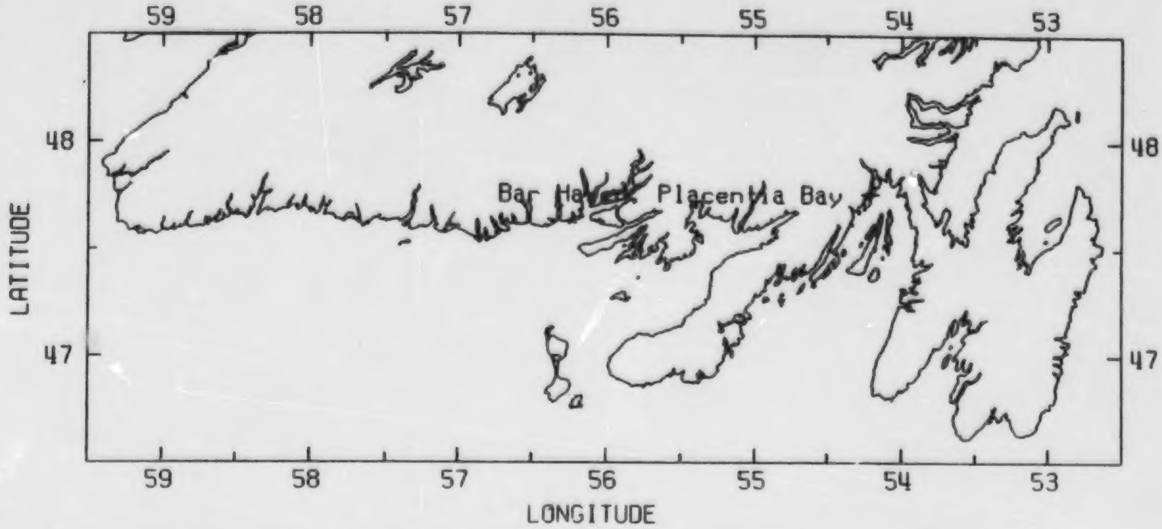
Start: 12-NOV-1999 End: 17-NOV-1999 Inst. S/N:8955

THERMOGRAPH DATA SUMMARY

STATION NAME:	Bar Haven, Placentia Bay
STATION NUMBER:	242
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007928
LATITUDE:	47.76° N
LONGITUDE:	54.21° W
INSTRUMENT DEPTH:	36 m
WATER DEPTH:	36 m
SAMPLING INTERVAL:	30 min.
DEPLOYMENT DATE/TIME:	12-NOV-1999 12:00 GMT
RECOVERY DATE/TIME:	17-NOV-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1999	5.35	319	7.95	318	6.96	0.73	42.0	18.0	241
Total Period	5.35	319	7.95	318	6.96	0.73	42.0	18.0	241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LATITUDE
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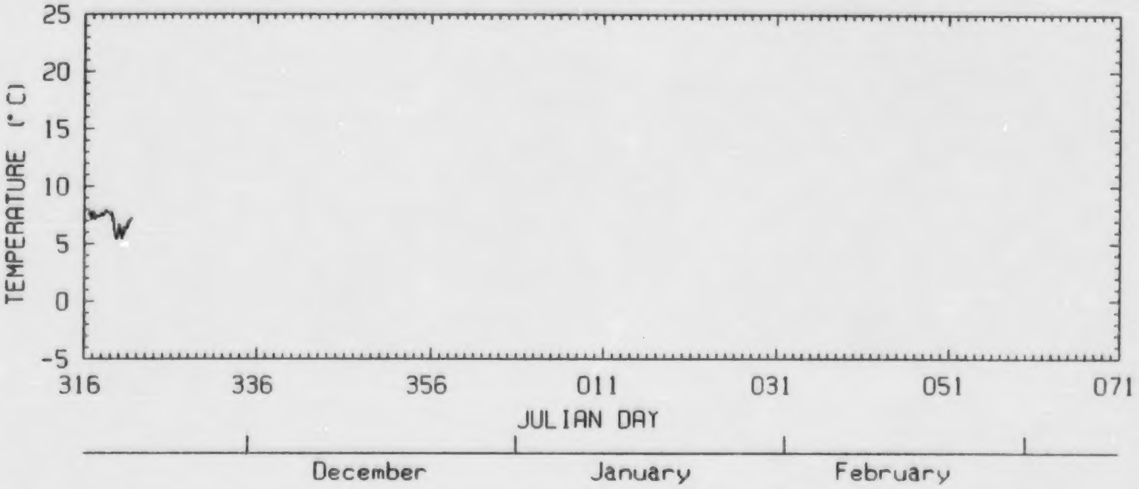
Bar Haven Placentia Bay



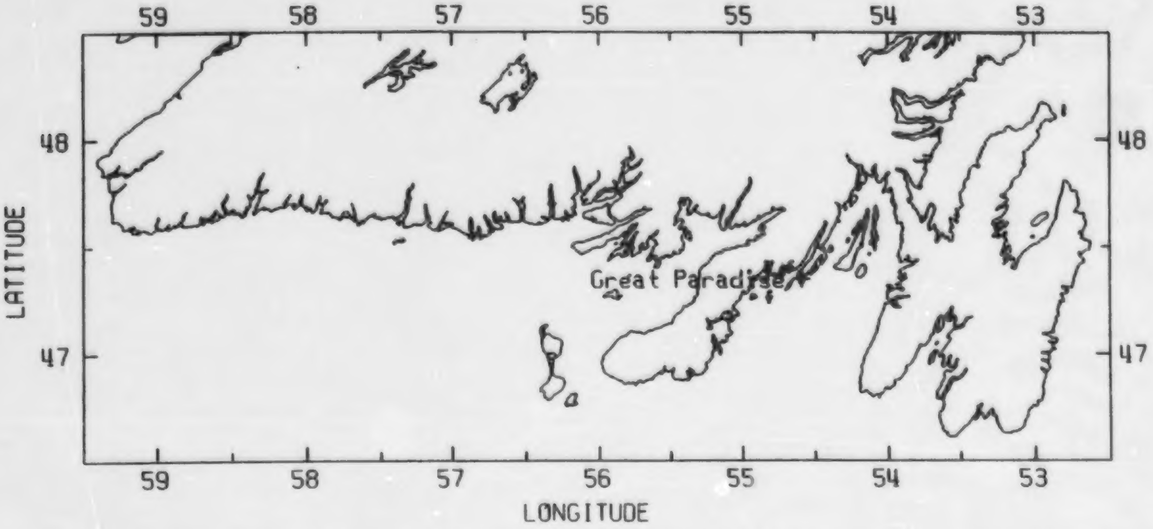
Start: 12-NOV-1999 End: 17-NOV-1999 Inst. S/N:7928

THERMOGRAPH DATA SUMMARY

STATION NAME:	Great Paradise
STATION NUMBER:	250
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008966
LATITUDE:	47.35° N
LONGITUDE:	54.59° W
INSTRUMENT DEPTH:	2 m
WATER DEPTH:	12 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	13-AUG-1999 08:00 GMT
RECOVERY DATE/TIME:	29-NOV-1999 19:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	15.10	243	18.55	225	16.55	0.59	314.2	238.2	448
SEP-1999	10.90	268	17.75	246	15.40	0.93	462.0	342.0	720
OCT-1999	7.20	303	14.10	274	10.96	2.01	339.8	215.8	744
NOV-1999	5.25	329	7.85	305	6.45	0.74	187.0	71.0	692
Total Period	5.25	329	18.55	225	11.95	4.10	1302.9	866.9	2604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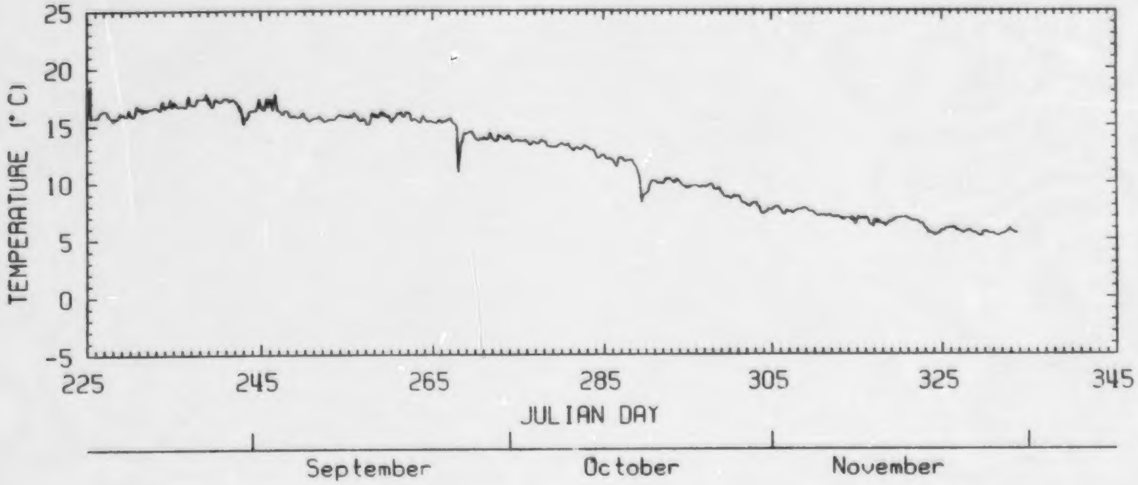
LONGITUDE
Great Paradise



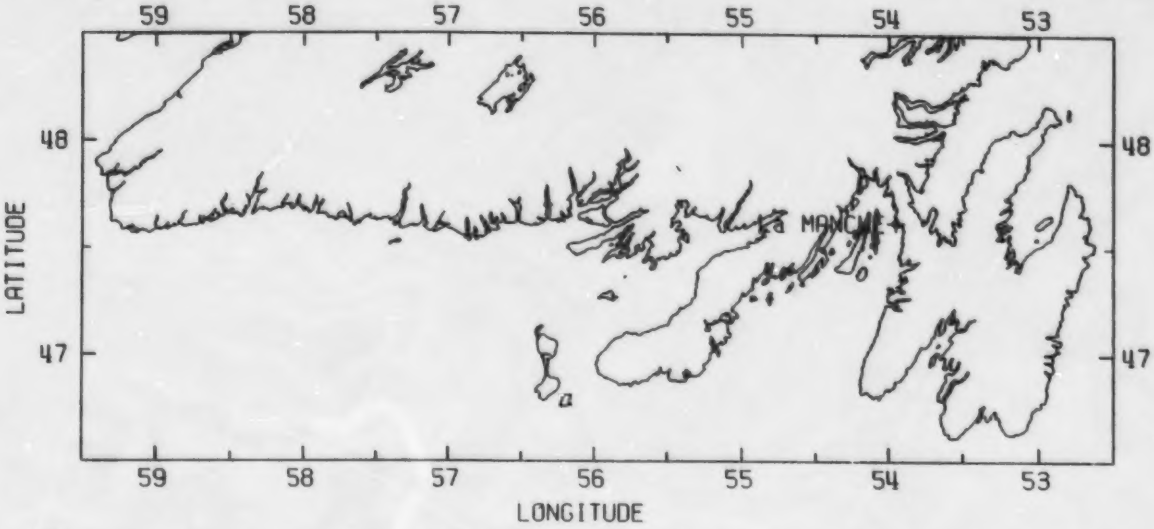
Start: 13-AUG-1999 End: 29-NOV-1999 Inst. S/N:8966

THERMOGRAPH DATA SUMMARY

STATION NAME:	La MANCHE
STATION NUMBER:	104
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	003260
LATITUDE:	47.62° N
LONGITUDE:	53.95° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	17-JUN-1998 17:00 GMT
RECOVERY DATE/TIME:	5-NOV-1998 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	1.95	181	11.25	178	6.85	2.35	95.9	41.4	319
JUL-1998	5.25	182	15.90	212	10.82	1.99	335.4	211.4	744
AUG-1998	1.60	243	18.45	237	9.82	6.22	304.4	186.2	744
SEP-1998	1.25	247	13.85	249	8.19	2.99	245.7	129.7	720
OCT-1998	0.00	281	11.85	275	6.82	2.69	211.6	96.0	744
NOV-1998	6.05	309	7.95	308	7.60	0.35	37.9	17.9	109
Total Period	0.00	281	18.45	237	8.68	3.98	1230.8	682.7	3380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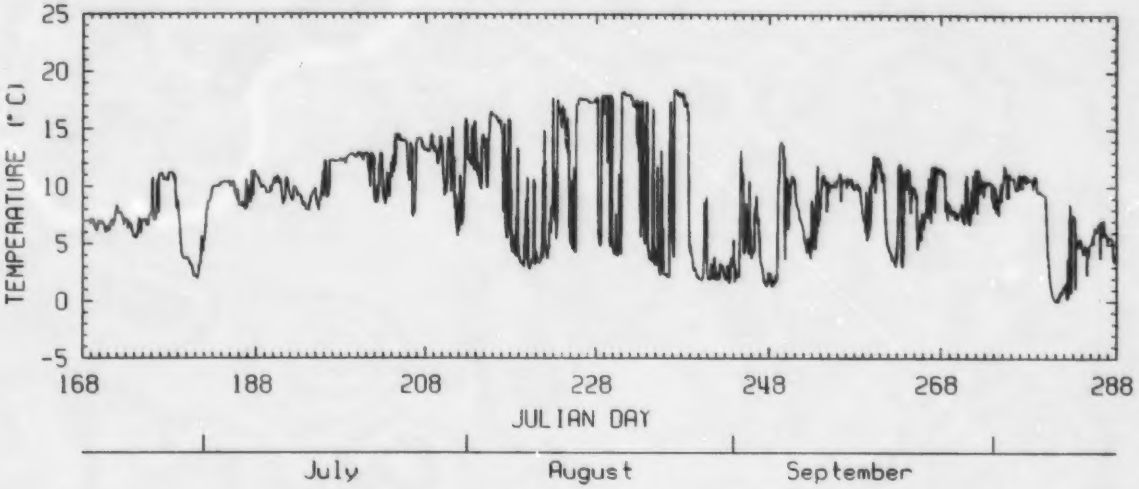
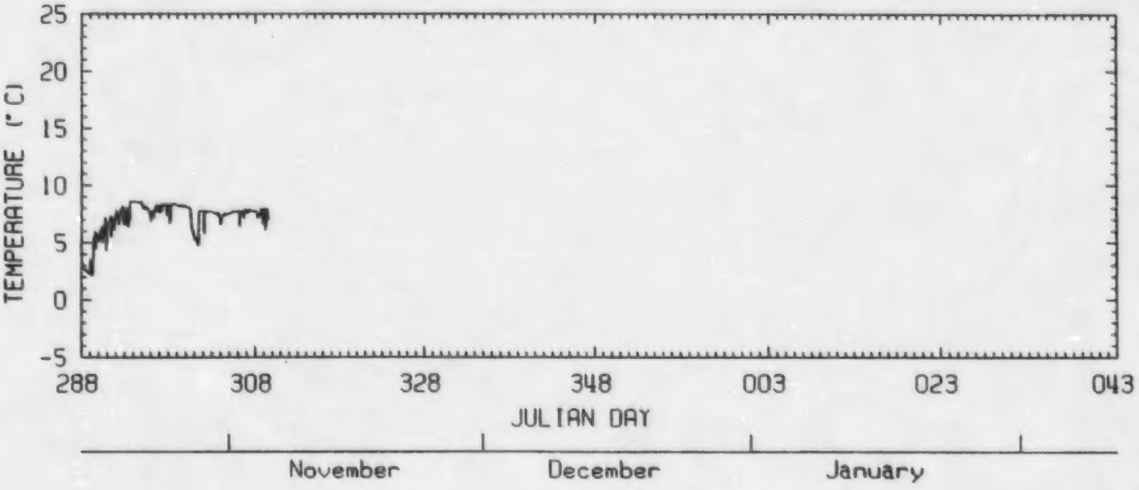
LATITUDE
LONGITUDE
La MANCHE





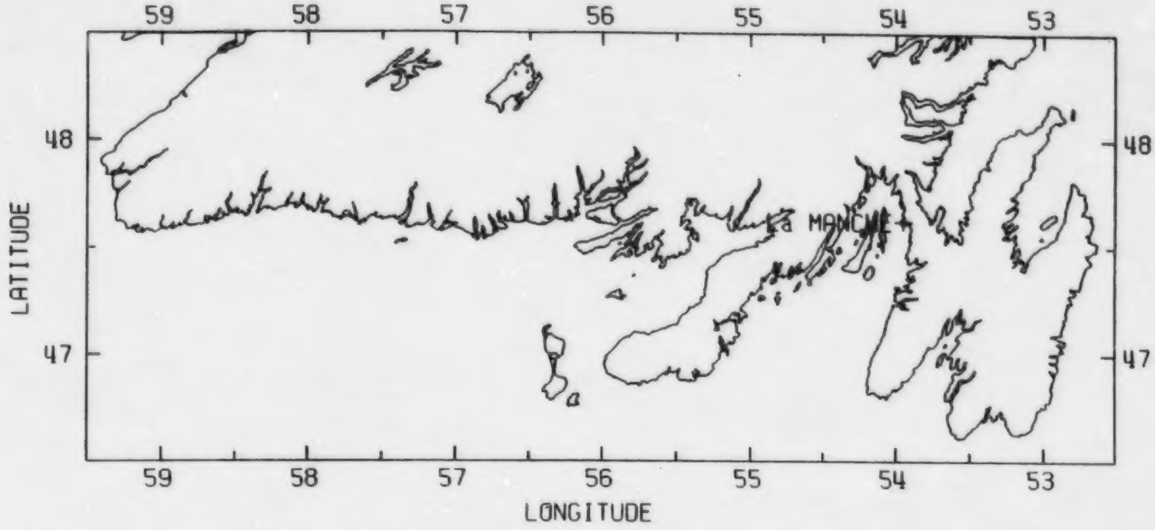
Start: 17-JUN-1998 End: 5-NOV-1998 Inst. S/N: 3260

THERMOGRAPH DATA SUMMARY

STATION NAME: La MANCHE
STATION NUMBER: 104
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 006646
LATITUDE: 47.62° N
LONGITUDE: 53.95° W
INSTRUMENT DEPTH: 9 m
WATER DEPTH: 31 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 12-JUN-1999 10:00 GMT
RECOVERY DATE/TIME: 8-NOV-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	3.25	171	12.10	180	8.90	2.20	168.9	92.9	446
JUL-1999	4.65	210	16.35	205	13.06	2.59	404.9	280.9	744
AUG-1999	2.75	233	18.10	220	14.00	4.45	434.0	310.3	744
SEP-1999	2.70	248	17.25	245	11.85	4.23	355.4	235.4	720
OCT-1999	2.45	293	14.35	277	10.01	2.11	310.5	186.5	744
NOV-1999	6.80	306	8.45	305	7.95	0.36	63.6	31.6	186
Total Period	2.45	293	18.10	220	11.60	3.80	1737.2	1137.5	3584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LATITUDE
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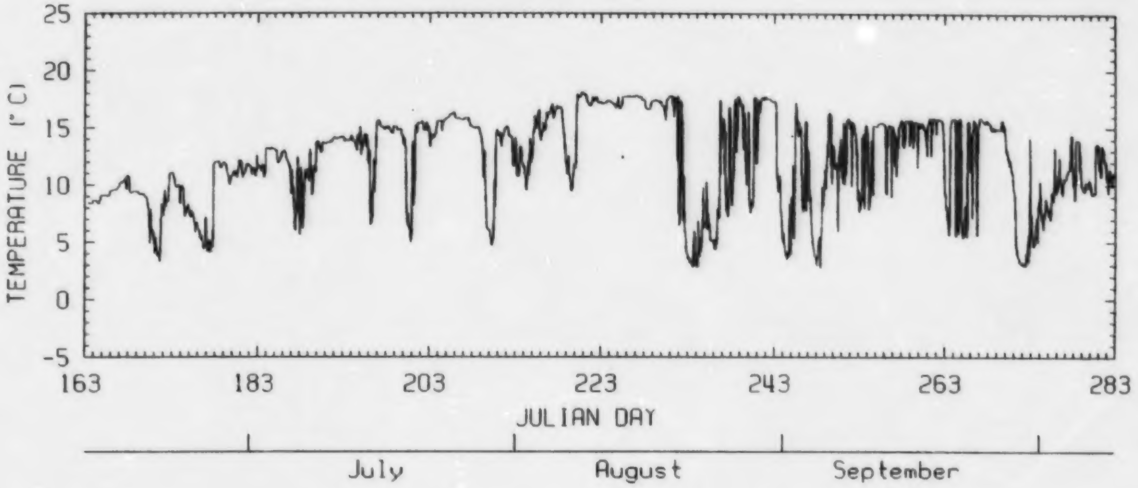
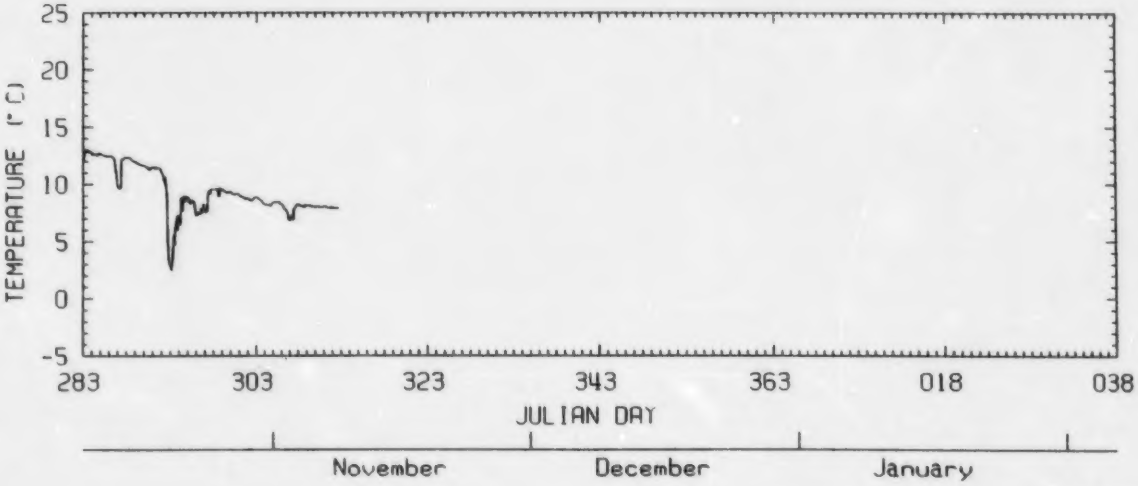
La MANCHE





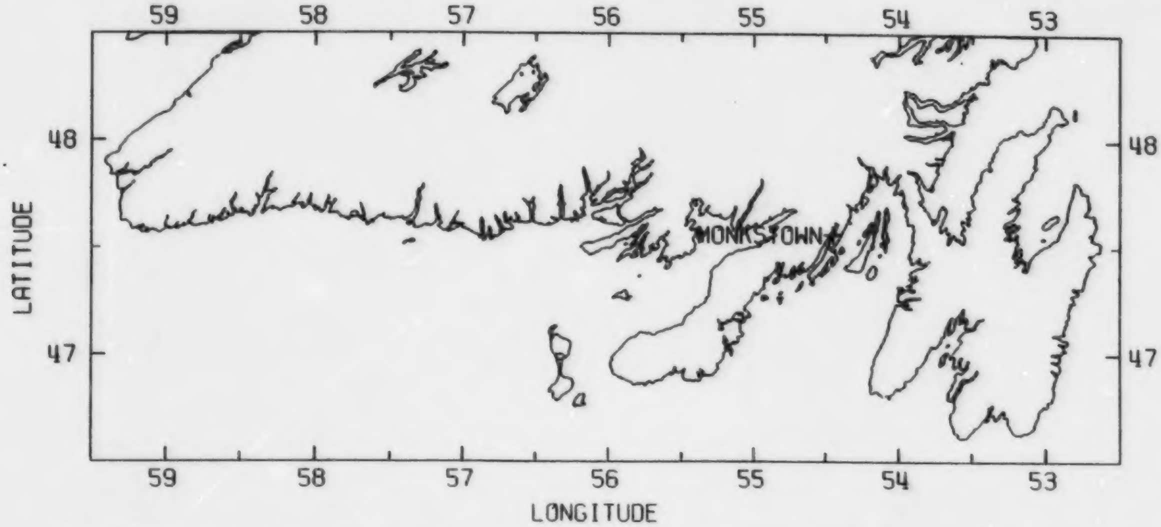
Start:12-JUN-1999 End: 8-NOV-1999 Inst. S/N:6646

THERMOGRAPH DATA SUMMARY

STATION NAME:	Monkstown
STATION NUMBER:	253
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008968
LATITUDE:	47.56° N
LONGITUDE:	54.45° W
INSTRUMENT DEPTH:	44 m
WATER DEPTH:	44 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	26-JUL-1999 23:00 GMT
RECOVERY DATE/TIME:	3-OCT-1999 23:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	0.45	212	5.75	210	2.07	1.27	12.3	0.0	121
AUG-1999	0.45	228	10.05	243	2.33	1.54	72.4	2.7	744
SEP-1999	0.20	268	15.50	267	4.77	3.52	143.0	44.3	720
OCT-1999	1.35	274	12.85	276	2.96	2.33	8.9	0.6	72
Total Period	0.20	268	15.50	267	3.40	2.87	236.5	47.6	1657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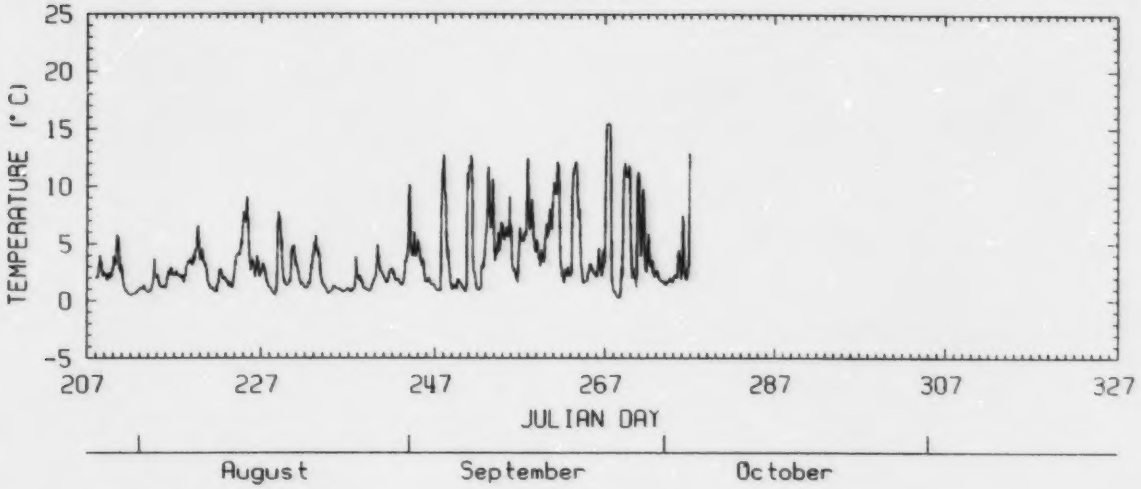


Start: 26-JUL-1999 End: 3-OCT-1999 Inst. S/N:8968

THERMOGRAPH DATA SUMMARY

STATION NAME: PETIT FORTE

STATION NUMBER: 249

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 007937

LATITUDE: 47.39° N

LONGITUDE: 54.67° W

INSTRUMENT DEPTH: 3 m

WATER DEPTH: 20 m

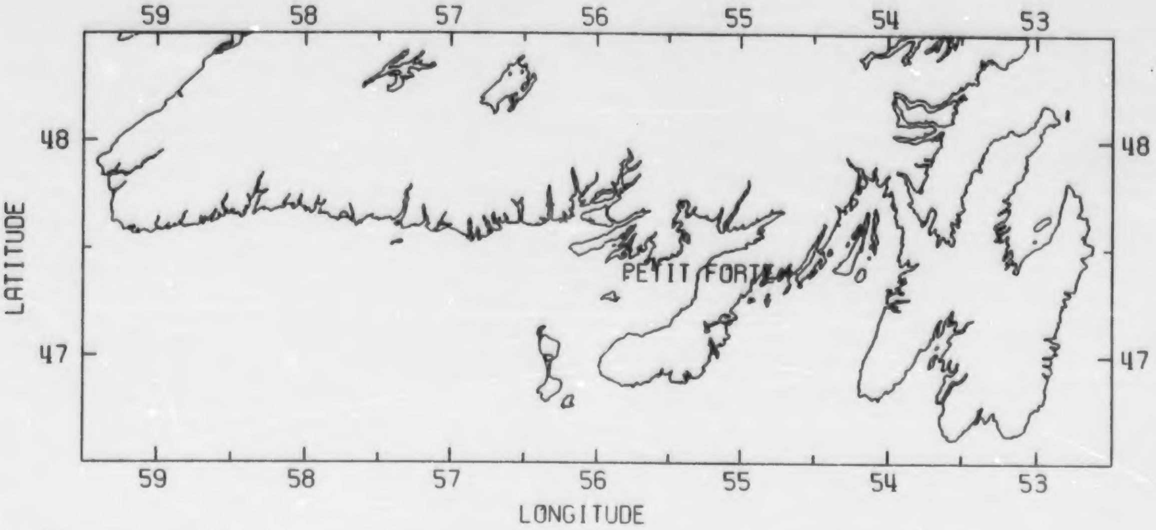
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 13-AUG-1999 09:00 GMT

RECOVERY DATE/TIME: 30-NOV-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1999	16.00	229	18.10	225	17.12	0.40	325.1	249.1	447
SEP-1999	13.70	271	18.80	246	15.76	0.87	472.8	352.8	720
OCT-1999	7.00	296	14.20	274	11.10	2.05	344.1	220.1	744
NOV-1999	5.20	323	8.10	305	6.72	0.73	201.1	81.1	709
Total Period	5.20	323	18.80	246	12.22	4.20	1343.1	903.1	2620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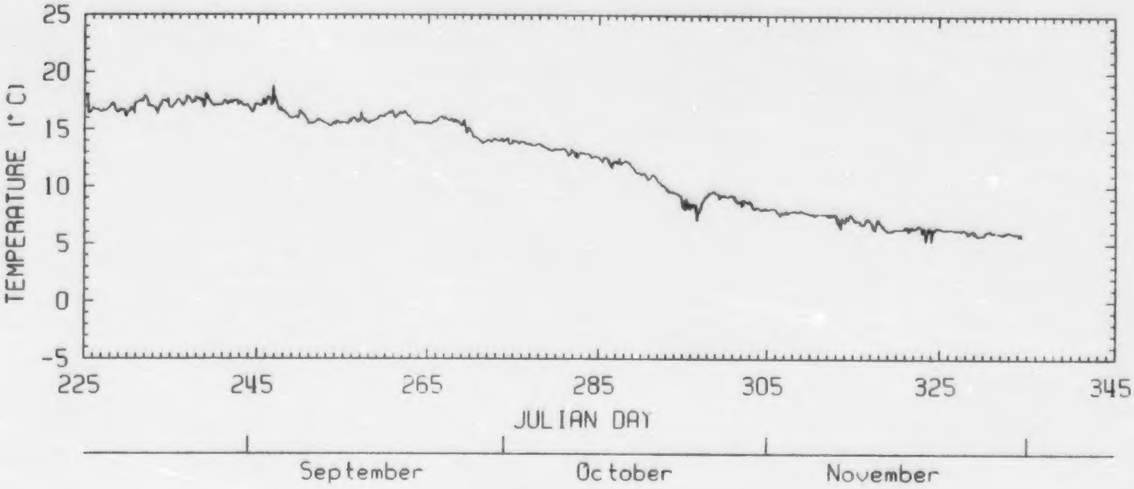


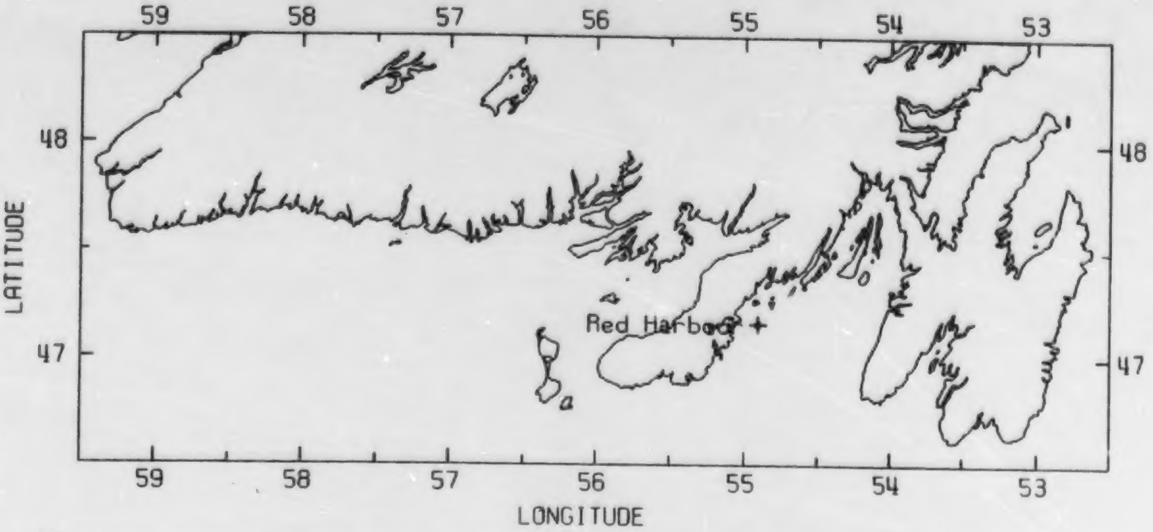
Start: 13-AUG-1999 End: 30-NOV-1999 Inst. S/N:7937

THERMOGRAPH DATA SUMMARY

STATION NAME: Red Harbour
STATION NUMBER: 203
INSTRUMENT TYPE: Minilog-T (Vemco)
INSTRUMENT S/N: 006438
LATITUDE: 47.16° N
LONGITUDE: 54.91° W
INSTRUMENT DEPTH: 58 m
WATER DEPTH: 60 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 26-JUN-1998 09:00 GMT
RECOVERY DATE/TIME: 18-NOV-1998 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	1.90	177	6.50	180	3.79	1.08	18.5	1.7	111
JUL-1998	1.10	212	5.90	192	2.85	0.92	88.3	1.2	744
AUG-1998	-0.10	237	2.00	214	0.90	0.37	27.9	0.0	744
SEP-1998	-0.90	249	4.10	270	1.34	0.85	40.4	0.0	720
OCT-1998	0.70	276	9.20	287	3.58	2.04	111.0	17.8	744
NOV-1998	-0.60	321	7.30	308	3.81	1.82	67.4	8.5	421
Total Period	-0.90	249	9.20	287	2.42	1.74	353.5	29.2	3484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LATITUDE
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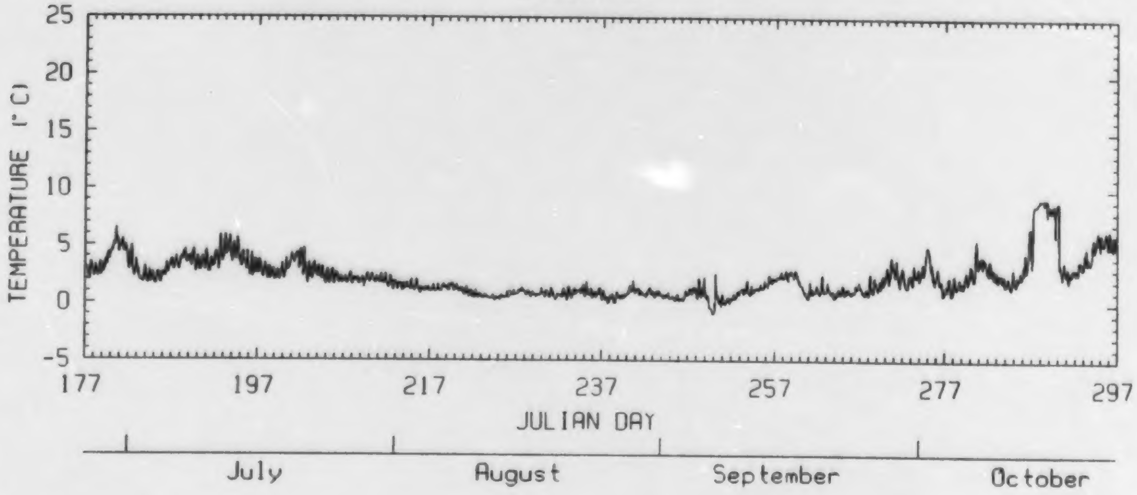
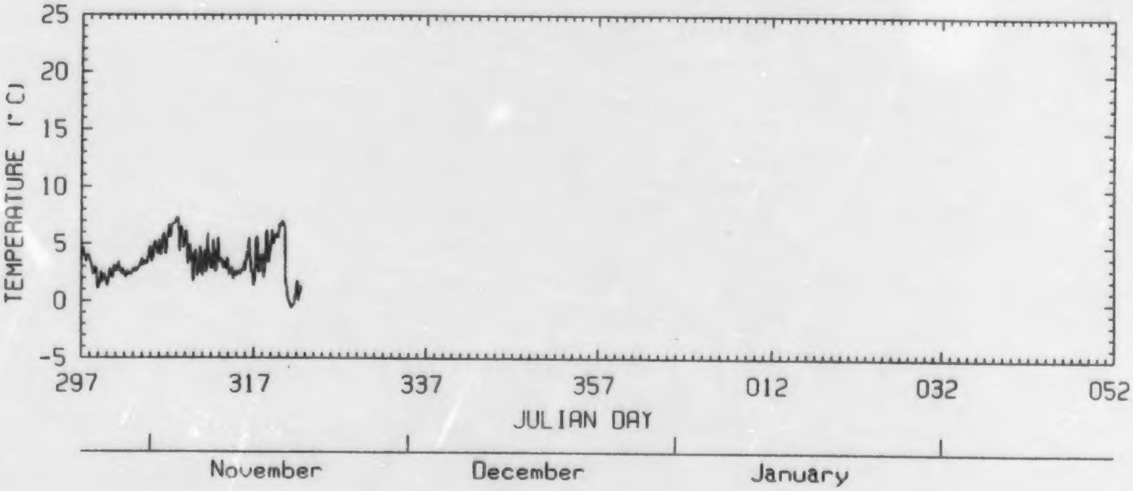
Red Harbour





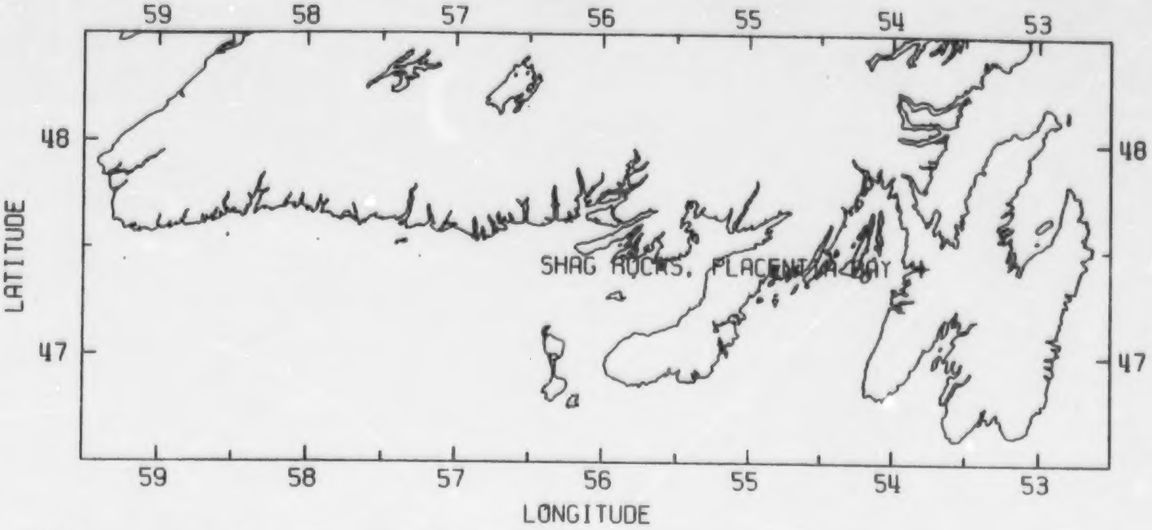
Start:26-JUN-1998 End:18-NOV-1998 Inst. S/N:6438

THERMOGRAPH DATA SUMMARY

STATION NAME:	SHAG ROCKS, PLACENTIA BAY
STATION NUMBER:	111
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006755
LATITUDE:	47.42° N
LONGITUDE:	53.80° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	20-AUG-1997 16:00 GMT
RECOVERY DATE/TIME:	19-NOV-1997 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
AUG-1997	4.40	232	16.10	241	13.49	2.30	156.3	108.3	272
SEP-1997	0.35	254	14.65	244	12.53	2.38	376.0	255.9	720
OCT-1997	2.25	288	12.80	275	9.01	2.45	279.3	156.6	744
NOV-1997	5.20	320	8.40	310	7.71	0.76	145.8	69.8	447
Total Period	0.35	254	16.10	241	10.46	3.09	957.3	590.6	2183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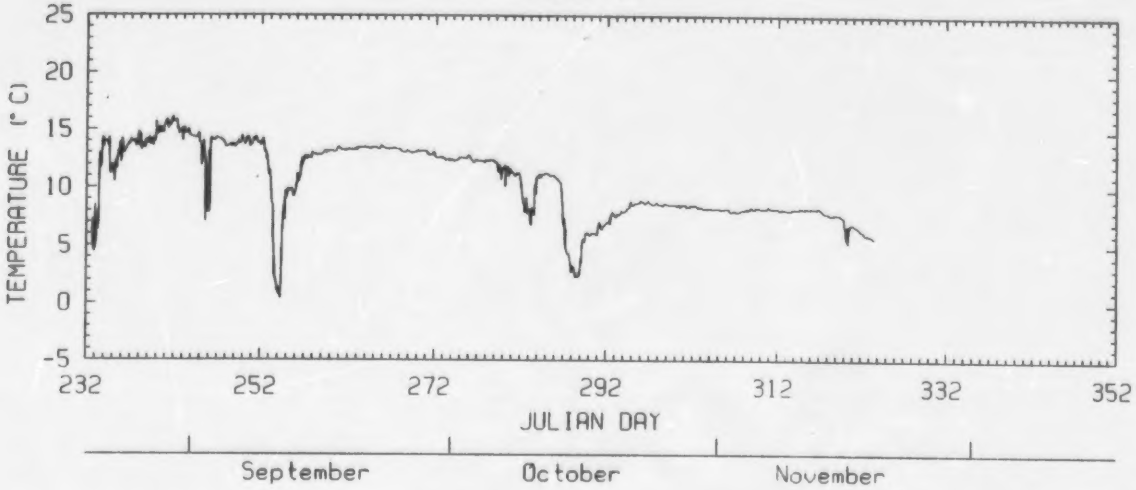
LATITUDE
LONGITUDE
SHAG ROCKS, PLACENTIA BAY



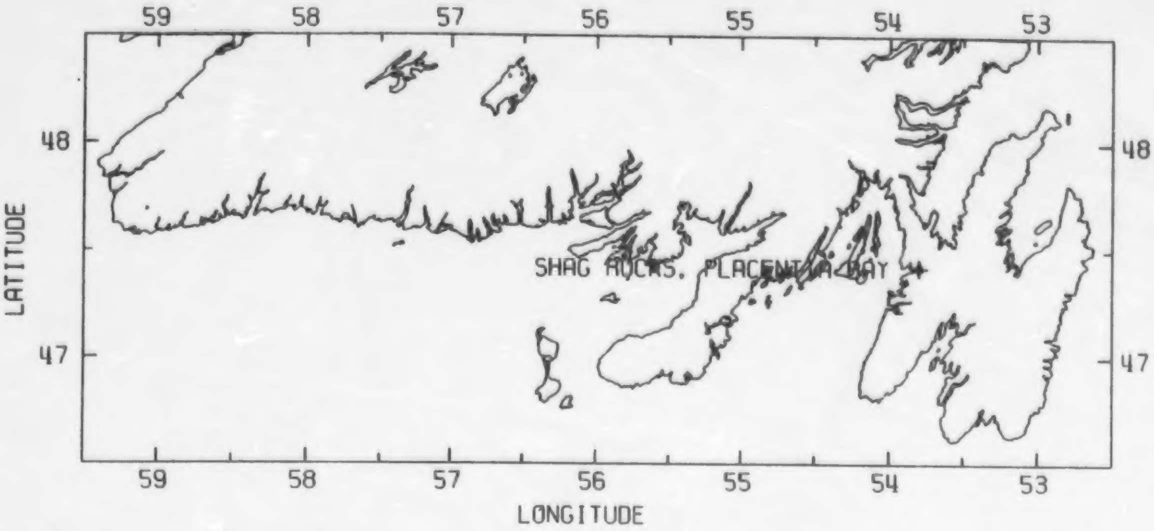
Start: 20-AUG-1997 End: 19-NOV-1997 Inst. S/N:6755

THERMOGRAPH DATA SUMMARY

STATION NAME:	SHAG ROCKS, PLACENTIA BAY
STATION NUMBER:	111
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	003287
LATITUDE:	47.42° N
LONGITUDE:	53.80° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	19-NOV-1997 15:00 GMT
RECOVERY DATE/TIME:	3-JUN-1998 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	4.40	333	5.80	324	5.02	0.44	60.6	12.6	273
DEC-1997	1.75	359	4.50	336	3.26	0.89	101.1	2.8	744
JAN-1998	-0.40	29	1.95	1	0.44	0.48	14.7	0.0	744
FEB-1998	-0.90	48	0.30	59	-0.46	0.23	0.0	0.0	672
MAR-1998	-0.40	63	0.85	89	0.04	0.23	3.5	0.0	744
APR-1998	-0.10	94	2.65	112	1.24	0.72	37.2	0.0	720
MAY-1998	0.35	139	6.30	149	3.70	1.38	114.6	12.2	744
JUN-1998	5.60	152	6.55	154	6.03	0.30	18.2	6.2	63
Total Period	-0.90	48	6.55	154	1.67	1.97	350.0	33.8	4704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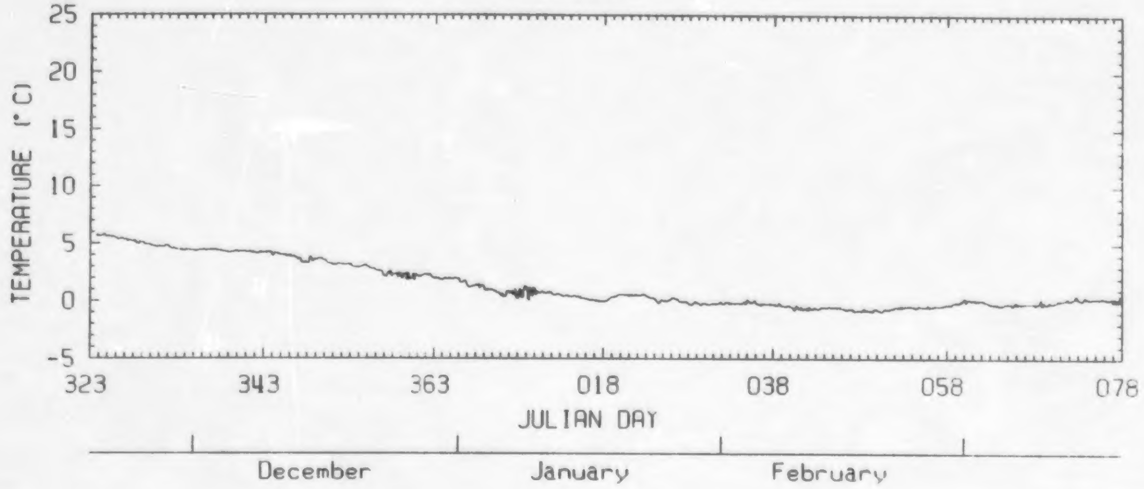
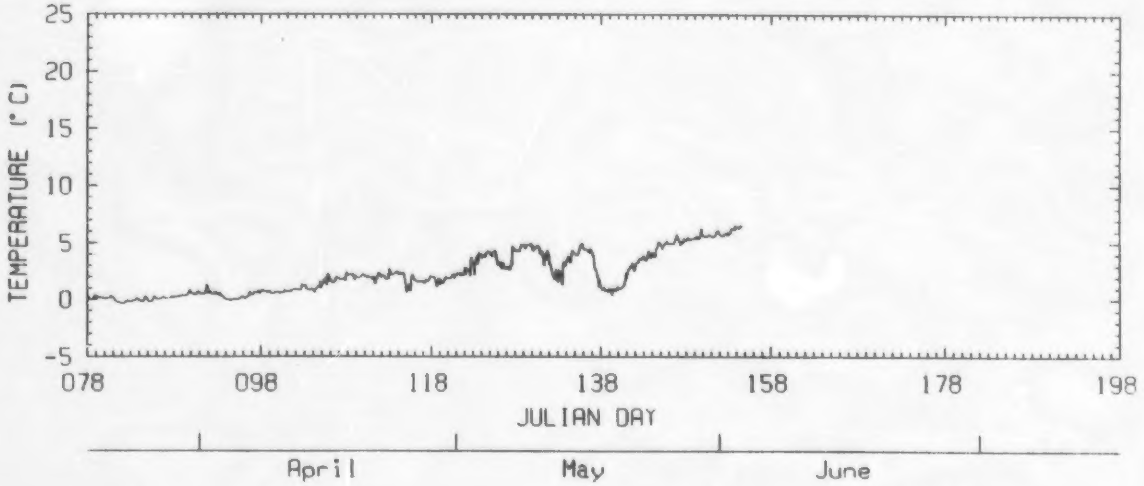
LATITUDE
SHAG ROCKS, PLACENTIA BAY
LONGITUDE





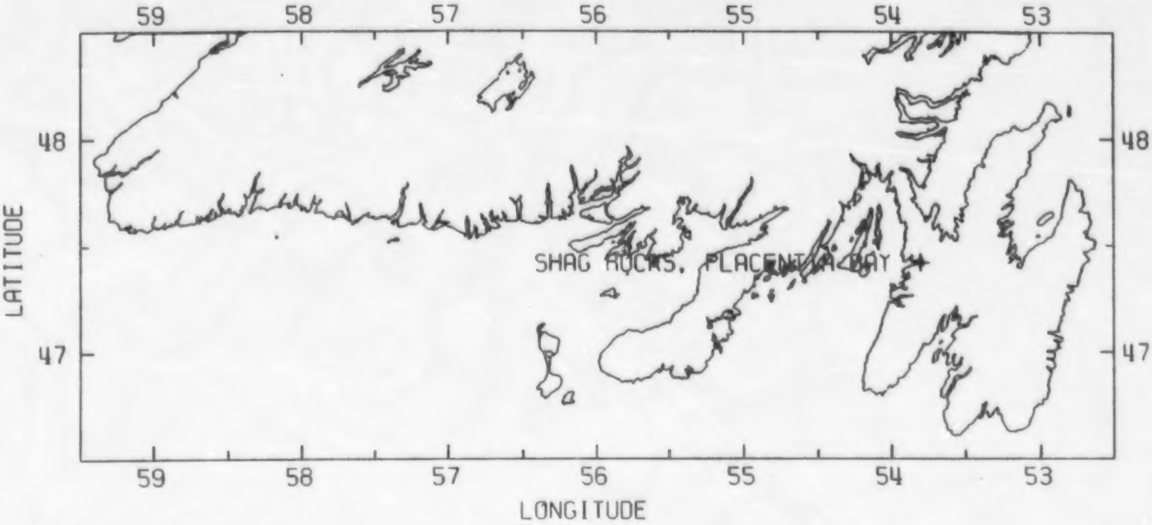
Start: 19-NOV-1997 End: 3-JUN-1998 Inst. S/N: 3287

THERMOGRAPH DATA SUMMARY

STATION NAME: SHAG ROCKS, PLACENTIA BAY
STATION NUMBER: 111
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 006744
LATITUDE: 47.42° N
LONGITUDE: 53.80° W
INSTRUMENT DEPTH: 9 m
WATER DEPTH: Not Applicable
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 19-NOV-1997 15:00 GMT
RECOVERY DATE/TIME: 3-JUN-1998 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	4.45	333	5.90	324	5.11	0.44	61.7	13.7	273
DEC-1997	1.75	360	4.55	336	3.30	0.89	102.4	3.3	744
JAN-1998	-0.30	28	1.95	1	0.51	0.48	16.5	0.0	744
FEB-1998	-0.85	49	0.30	59	-0.38	0.23	0.0	0.0	672
MAR-1998	-0.30	63	0.85	89	0.10	0.22	4.5	0.0	744
APR-1998	0.00	94	2.65	112	1.25	0.71	37.6	0.0	720
MAY-1998	0.40	139	6.20	149	3.69	1.43	114.2	12.8	744
JUN-1998	5.75	152	6.55	153	6.12	0.27	18.5	6.5	63
Total Period	-0.85	49	6.55	153	1.72	1.96	355.5	36.3	4704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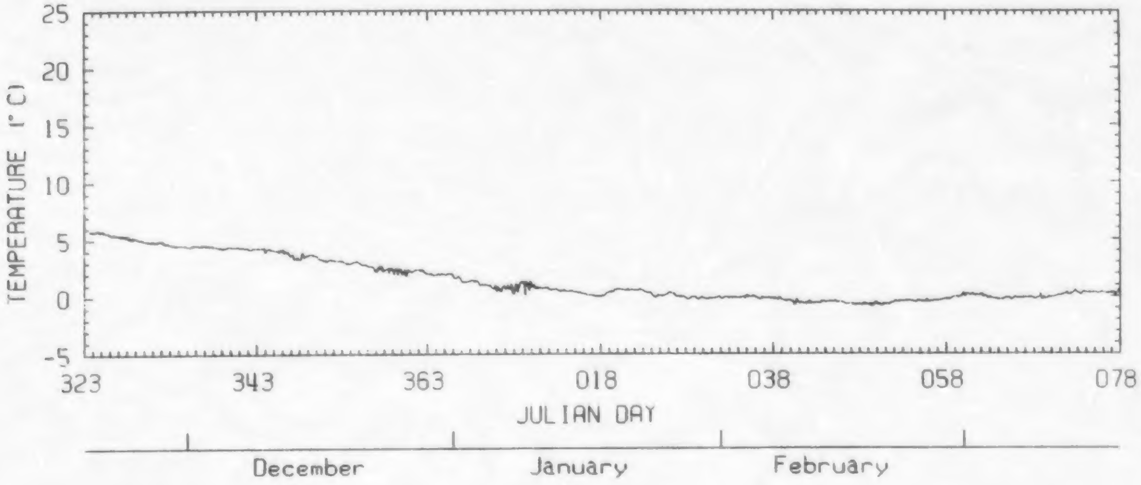
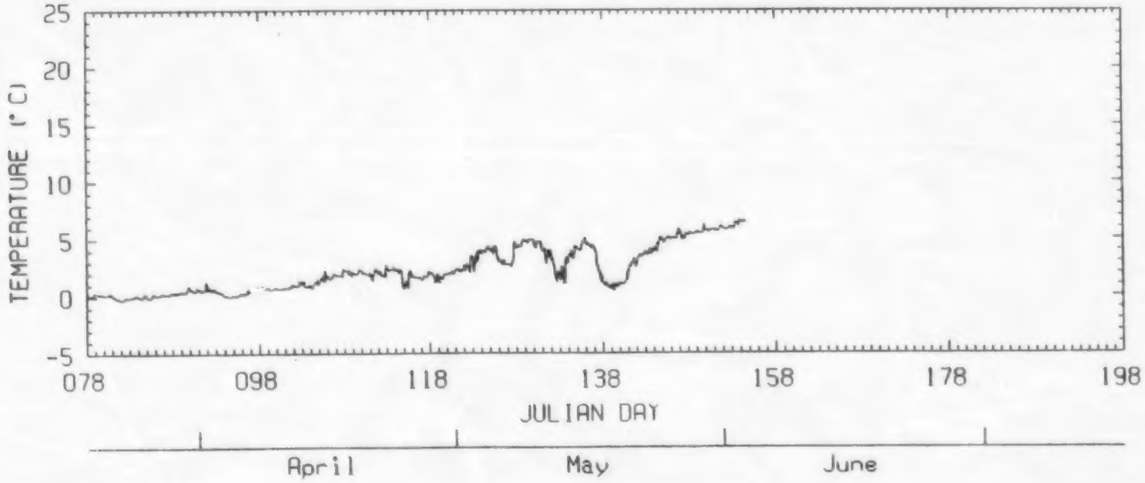
LATITUDE
LONGITUDE
SHAG ROCKS, PLACENTIA BAY





Start: 19-NOV-1997 End: 3-JUN-1998 Inst. S/N:6744

THERMOGRAPH DATA SUMMARY

STATION NAME: SHAG ROCKS, PLACENTIA BAY

STATION NUMBER: 111

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 003263

LATITUDE: 47.42° N

LONGITUDE: 53.80° W

INSTRUMENT DEPTH: 9 m

WATER DEPTH: 9 m

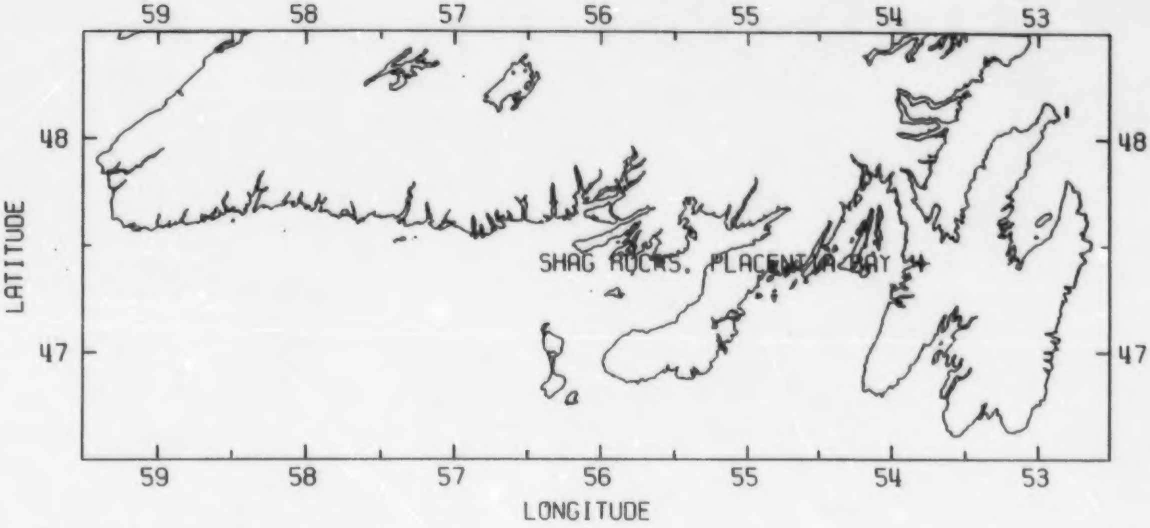
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 3-JUN-1998 15:00 GMT

RECOVERY DATE/TIME: 14-JAN-1999 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	1.95	180	11.30	171	7.33	2.23	204.6	93.6	657
JUL-1998	6.60	194	15.75	212	12.14	1.98	376.3	252.3	744
AUG-1998	3.05	243	18.65	234	16.00	3.39	496.1	372.1	744
SEP-1998	1.35	247	15.15	245	10.56	2.62	316.7	198.5	720
OCT-1998	0.80	281	10.95	274	8.18	1.89	253.7	130.2	744
NOV-1998	3.25	323	8.20	306	6.57	1.19	197.2	77.2	720
DEC-1998	1.15	362	5.15	335	2.99	1.12	92.6	4.1	744
JAN-1999	0.15	9	1.25	1	0.64	0.23	9.0	0.0	324
Total Period	0.15	9	18.65	234	8.64	4.82	1946.3	1128.0	5397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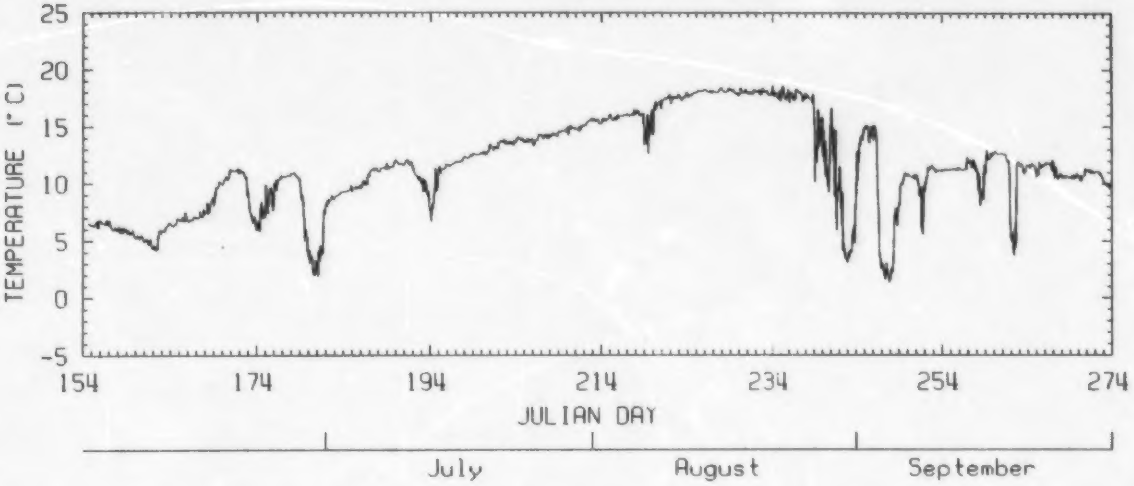
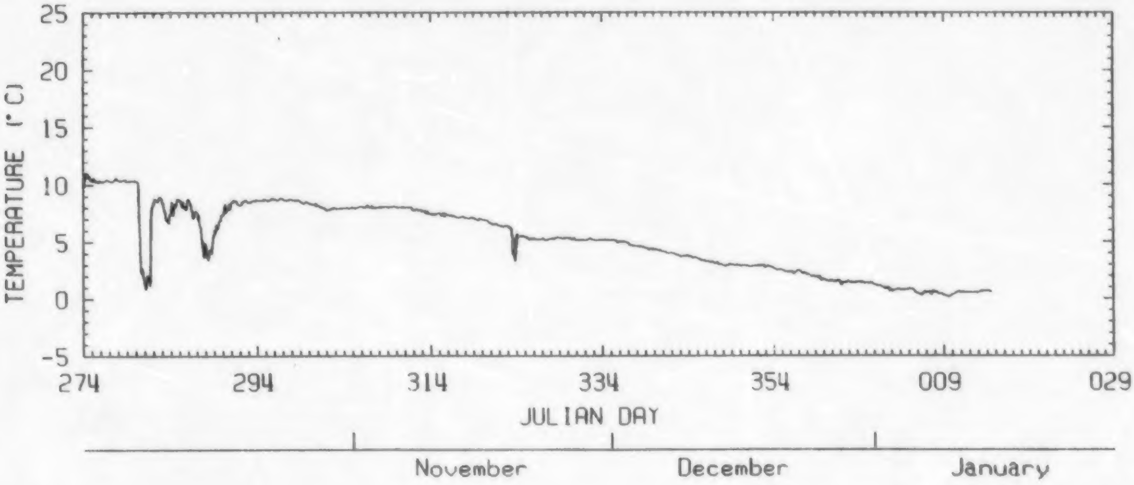
LATITUDE
LONGITUDE
SHAG ROCKS, PLACENTIA BAY





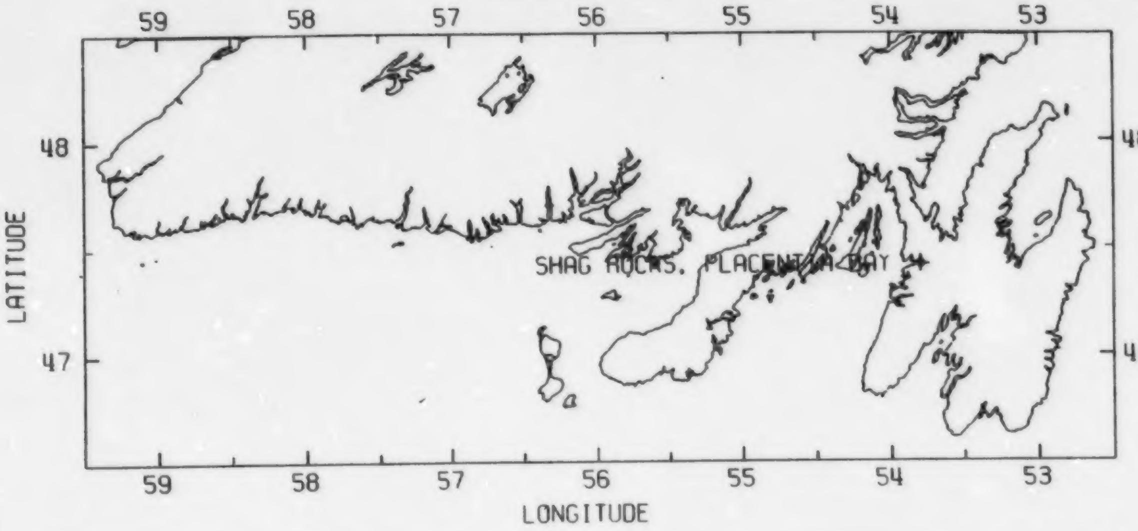
Start: 3-JUN-1998 End: 14-JAN-1999 Inst. S/N:3263

THERMOGRAPH DATA SUMMARY

STATION NAME:	SHAG ROCKS, PLACENTIA BAY
STATION NUMBER:	111
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	003864
LATITUDE:	47.42° N
LONGITUDE:	53.80° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-JUN-1998 15:00 GMT
RECOVERY DATE/TIME:	28-JAN-1999 23:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	1.70	180	11.10	170	7.15	2.24	199.8	89.0	657
JUL-1998	6.10	194	15.60	212	12.00	2.00	372.1	248.1	744
AUG-1998	3.00	242	18.70	234	15.85	3.47	491.3	367.3	744
SEP-1998	1.30	247	15.10	246	10.44	2.63	313.3	195.2	720
OCT-1998	0.90	281	11.00	274	8.12	1.90	251.8	128.4	744
NOV-1998	3.20	323	8.40	306	6.60	1.15	197.9	77.9	720
DEC-1998	1.30	362	5.20	335	3.05	1.10	94.6	4.2	744
JAN-1999	0.20	24	1.40	1	0.66	0.24	18.4	0.0	672
Total Period	0.20	24	18.70	234	8.08	4.99	1939.1	1110.1	5745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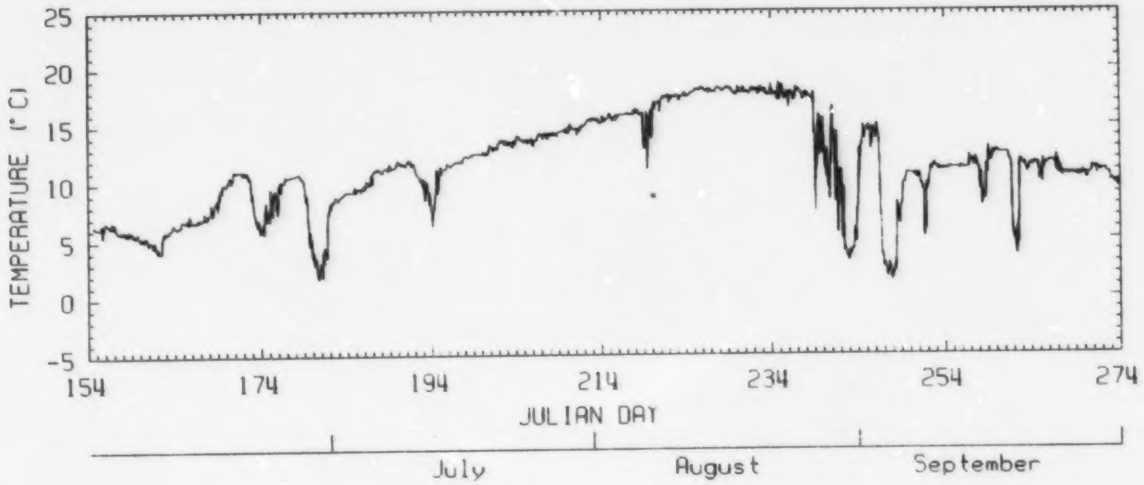
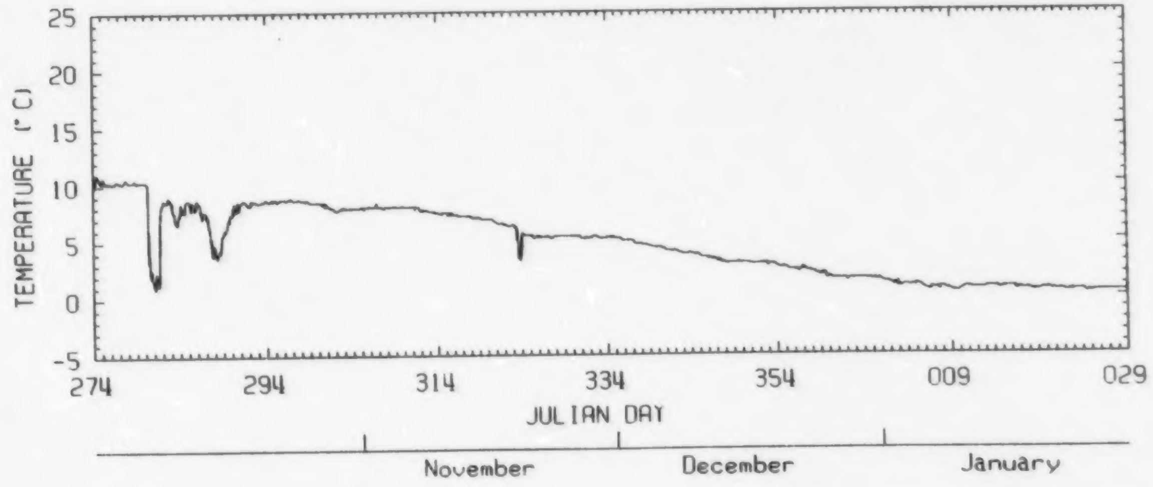
LATITUDE
LONGITUDE
SHAG ROCKS, PLACENTIA BAY





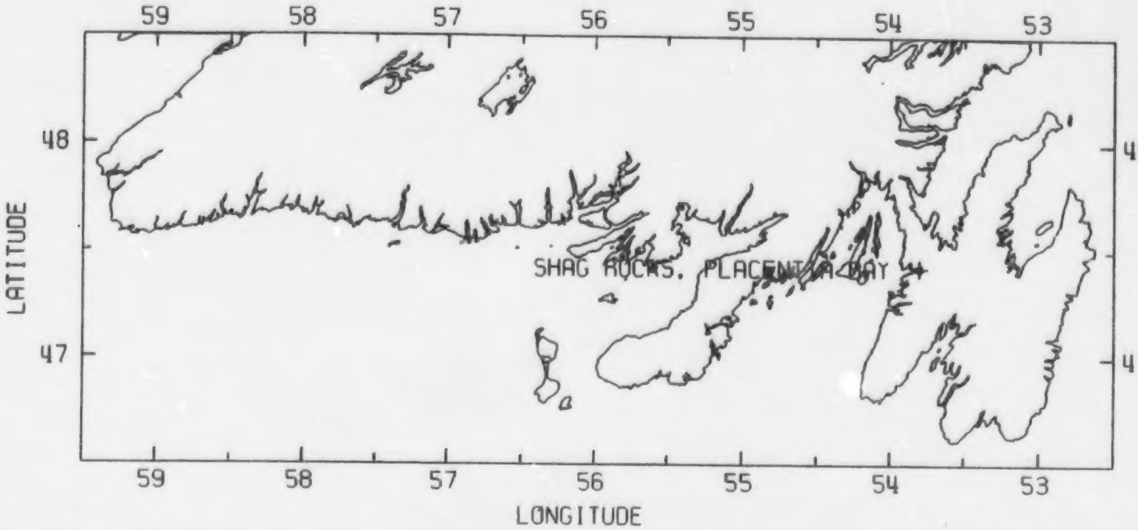
Start: 3-JUN-1998 End:28-JAN-1999 Inst. S/N:3864

THERMOGRAPH DATA SUMMARY

STATION NAME:	SHAG ROCKS, PLACENTIA BAY
STATION NUMBER:	111
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007938
LATITUDE:	47.42° N
LONGITUDE:	53.80° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	23-APR-1999 18:00 GMT
RECOVERY DATE/TIME:	25-AUG-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
APR-1999	1.35	115	2.65	114	1.84	0.25	15.0	0.0	174
MAY-1999	1.65	122	7.40	151	4.73	1.38	146.6	33.1	744
JUN-1999	2.20	171	11.75	180	8.58	1.93	257.4	137.4	720
JUL-1999	5.45	209	15.80	211	13.63	1.37	422.6	298.6	744
AUG-1999	5.00	232	17.60	228	15.70	2.70	391.9	291.9	590
Total Period	1.35	115	17.60	228	9.90	4.94	1233.4	761.0	2972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LATITUDE
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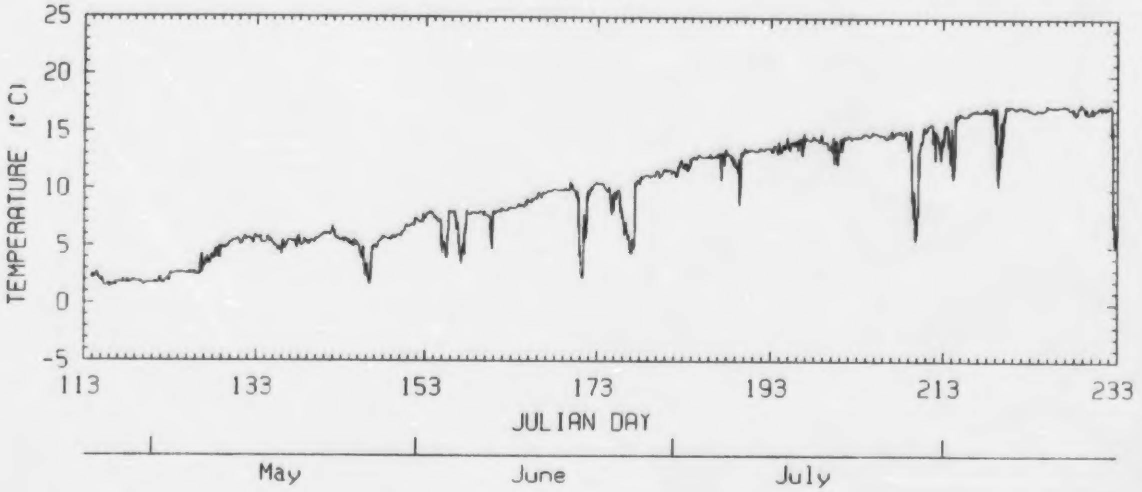
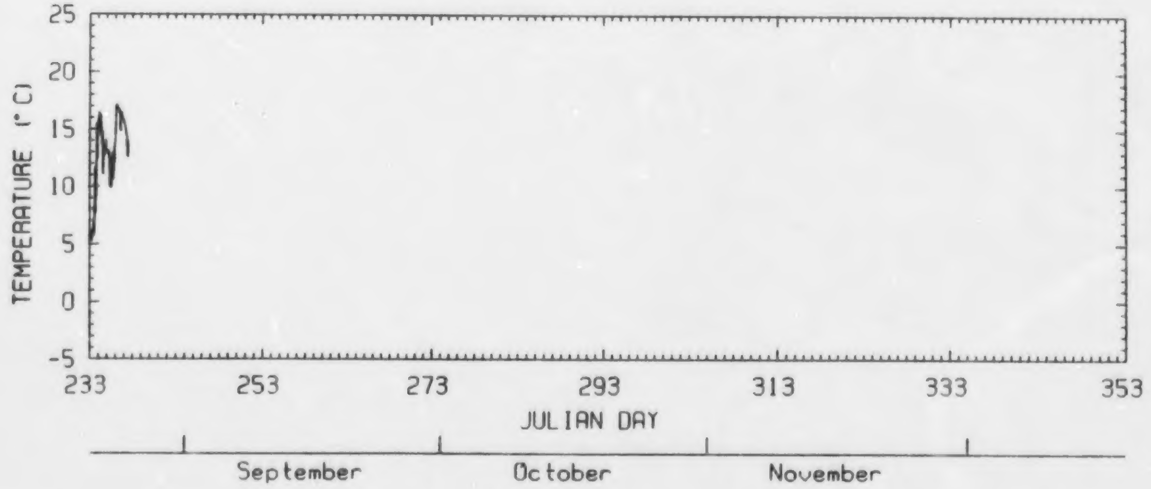
SHAG ROCKS, PLACENTIA BAY





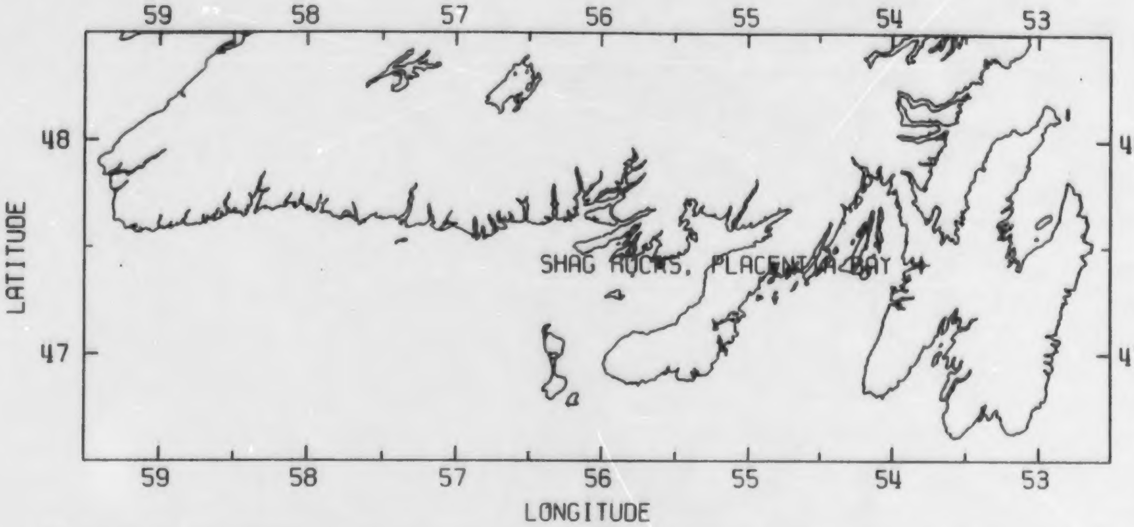
Start:23-APR-1999 End:25-AUG-1999 Inst. S/N:7938

THERMOGRAPH DATA SUMMARY

STATION NAME:	SHAG ROCKS, PLACENTIA BAY
STATION NUMBER:	111
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006246
LATITUDE:	47.42° N
LONGITUDE:	53.80° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	23-APR-1999 18:00 GMT
RECOVERY DATE/TIME:	25-AUG-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
APR-1999	1.40	115	2.60	114	1.83	0.26	14.9	0.0	174
MAY-1999	1.60	122	7.40	151	4.74	1.39	146.9	33.4	744
JUN-1999	2.20	171	11.80	180	8.61	1.93	258.2	138.2	720
JUL-1999	5.50	209	15.90	211	13.67	1.35	423.9	299.9	744
AUG-1999	5.20	232	17.50	224	15.78	2.64	394.0	294.0	590
Total Period	1.40	115	17.50	224	9.93	4.95	1237.9	765.4	2972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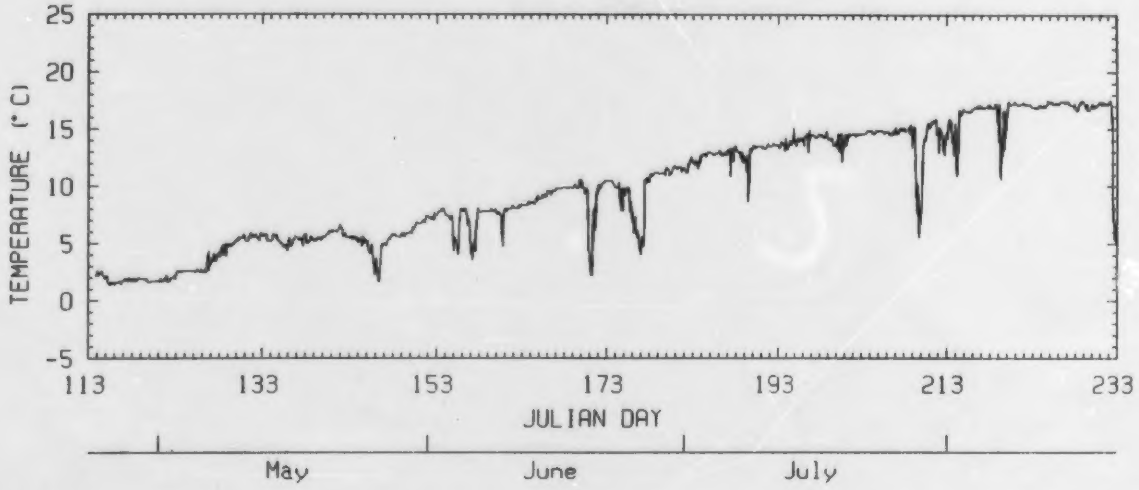
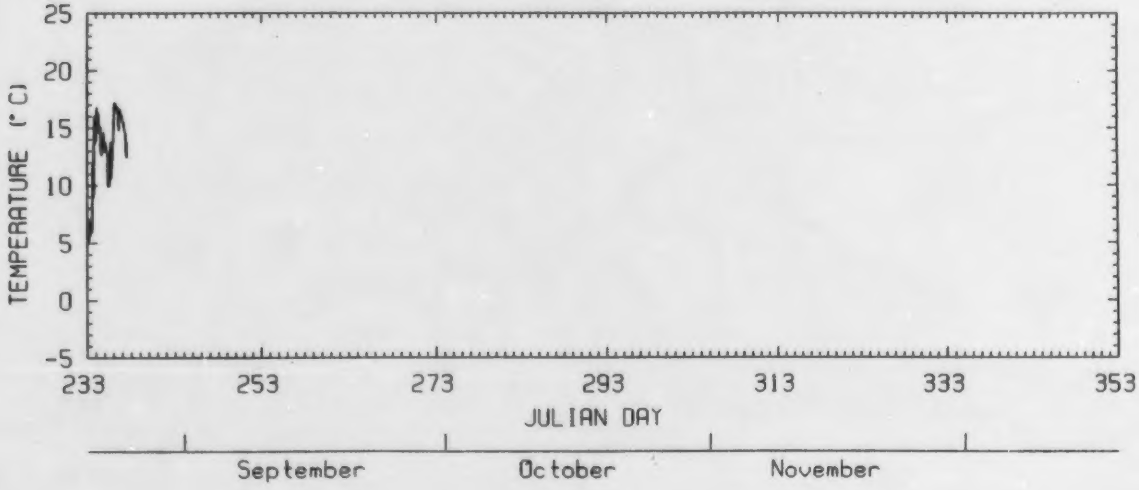
LATITUDE
LONGITUDE
SHAG ROCKS, PLACENTIA BAY





Start:23-APR-1999 End:25-AUG-1999 Inst. S/N:6246

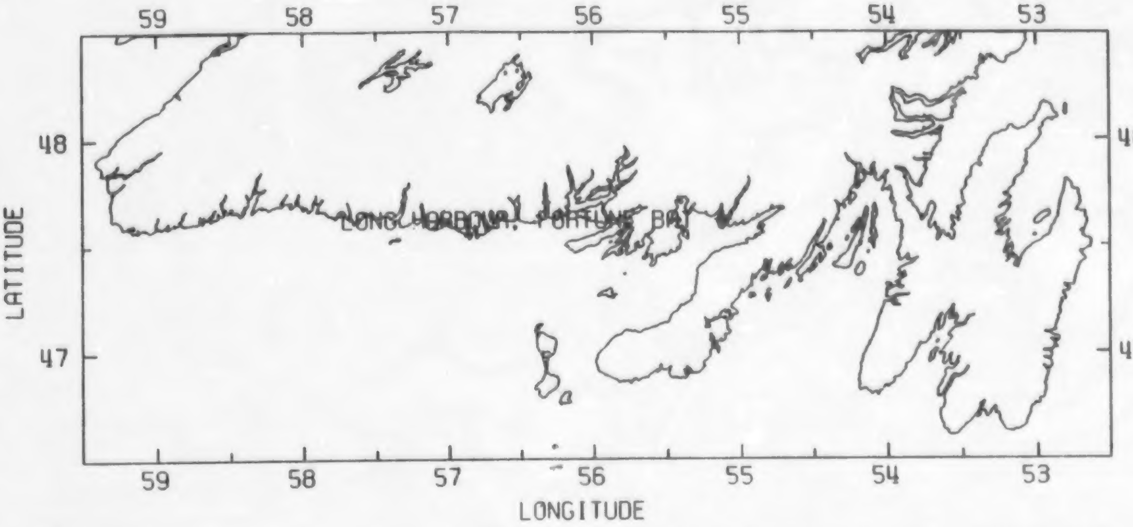
Appendix 13. Time Series Plots and Monthly Statistics from Unit Area 3PSb.

THERMOGRAPH DATA SUMMARY

STATION NAME:	LONG HARBOUR, FORTUNE BAY
STATION NUMBER:	107
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006597
LATITUDE:	47.62° N
LONGITUDE:	55.12° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	20 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	30-MAR-1998 15:00 GMT
RECOVERY DATE/TIME:	11-OCT-1998 03:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAR-1998	0.65	90	1.00	90	0.76	0.09	1.5	0.0	33
APR-1998	0.50	98	2.15	115	0.87	0.30	26.1	0.0	720
MAY-1998	0.45	140	5.10	148	1.61	0.95	49.8	0.0	744
JUN-1998	2.00	163	10.05	179	4.95	1.35	148.5	31.2	720
JUL-1998	2.35	182	13.60	210	8.99	2.25	278.6	155.2	744
AUG-1998	3.65	243	17.50	230	13.89	3.20	430.6	306.6	744
SEP-1998	2.50	247	14.40	246	8.55	2.45	256.5	137.7	720
OCT-1998	7.60	282	11.25	275	9.92	0.83	108.4	64.4	244
Total Period	0.45	140	17.50	230	6.64	4.91	1299.9	695.1	4669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LATITUDE
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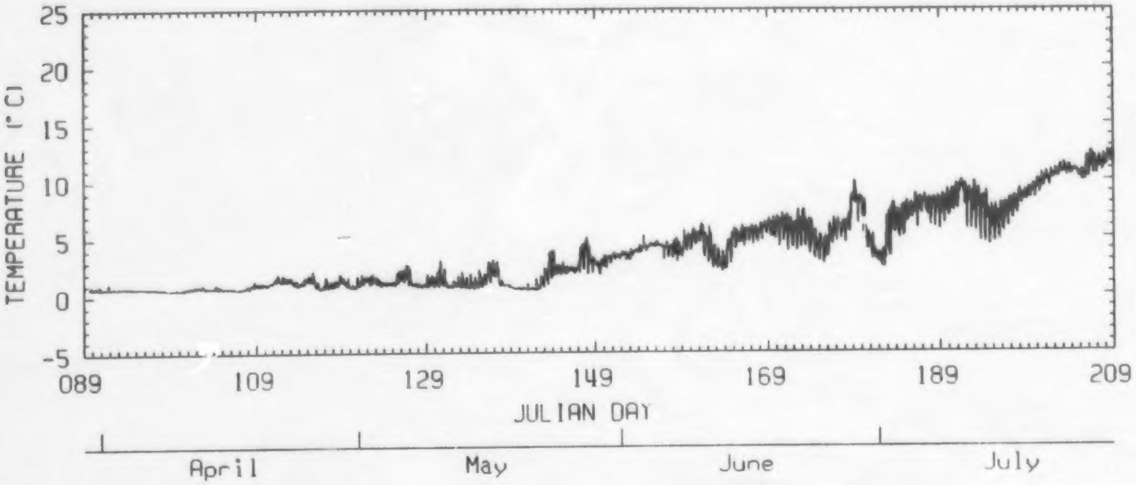
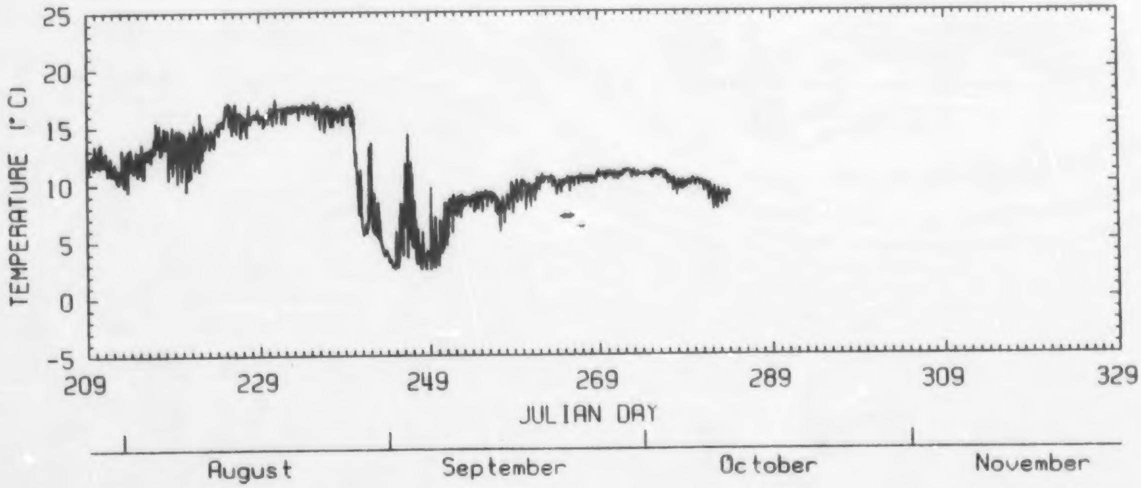
LONG HARBOUR, FORTUNE BAY





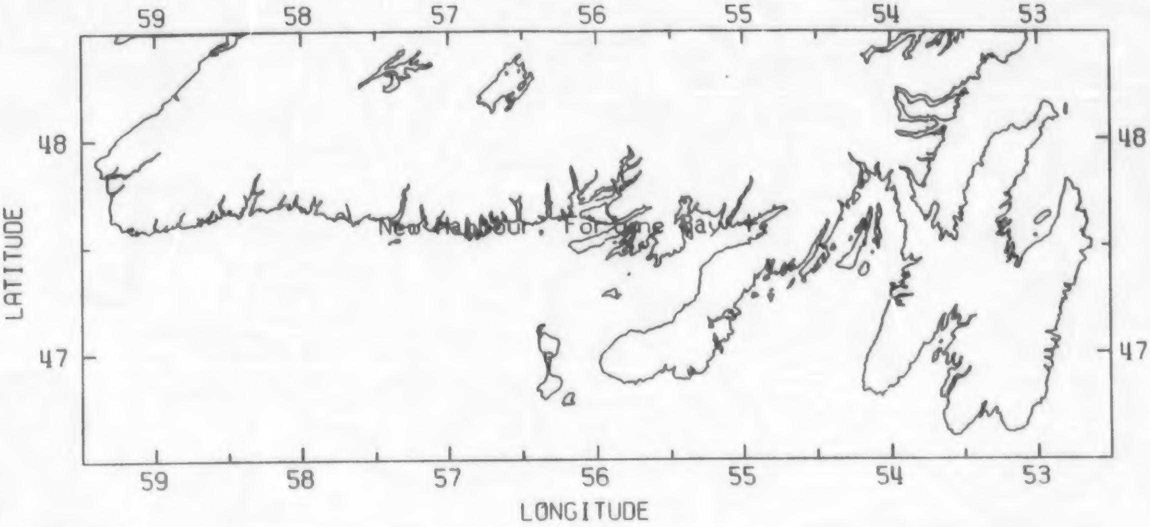
Start:30-MAR-1998 End:11-OCT-1998 Inst. S/N:6597

THERMOGRAPH DATA SUMMARY

STATION NAME:	New Harbour, Fortune Bay
STATION NUMBER:	255
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007946
LATITUDE:	47.60° N
LONGITUDE:	54.96° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	36 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	1-MAY-1999 12:00 GMT
RECOVERY DATE/TIME:	12-OCT-1999 00:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	0.75	122	7.30	146	4.17	1.79	127.7	25.5	732
JUN-1999	2.25	171	14.00	181	8.78	2.67	263.5	143.7	720
JUL-1999	3.10	210	17.40	200	14.69	2.46	455.3	331.3	744
AUG-1999	11.75	236	18.85	220	17.38	1.04	538.7	414.7	744
SEP-1999	5.60	248	18.30	244	15.38	1.98	461.3	341.3	720
OCT-1999	6.35	280	14.60	274	13.45	1.51	160.3	112.3	265
Total Period	0.75	122	18.85	220	12.20	5.15	2006.8	1368.8	3925


New Harbour, Fortune Bay
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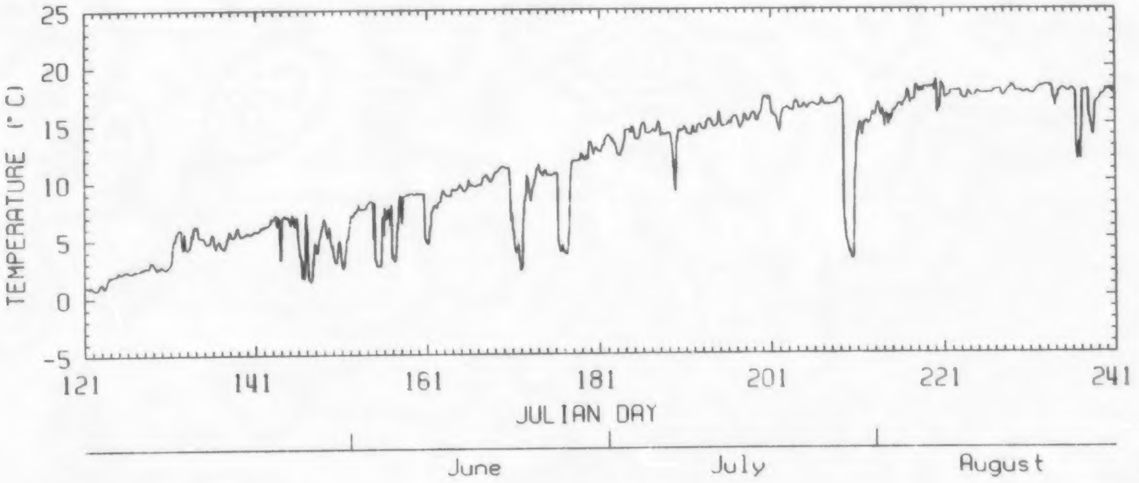
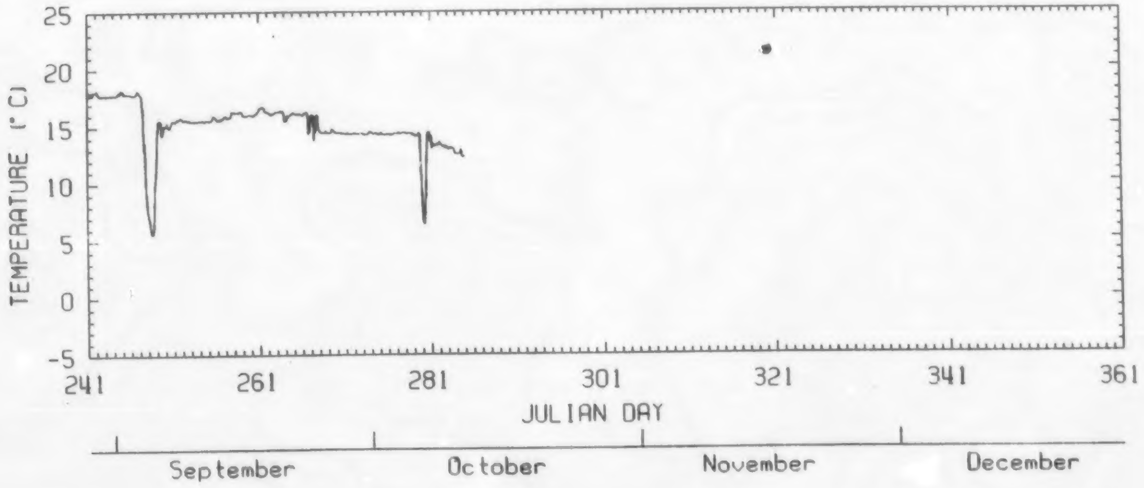




Start: 1-MAY-1999 End:12-OCT-1999 Inst. S/N:7946

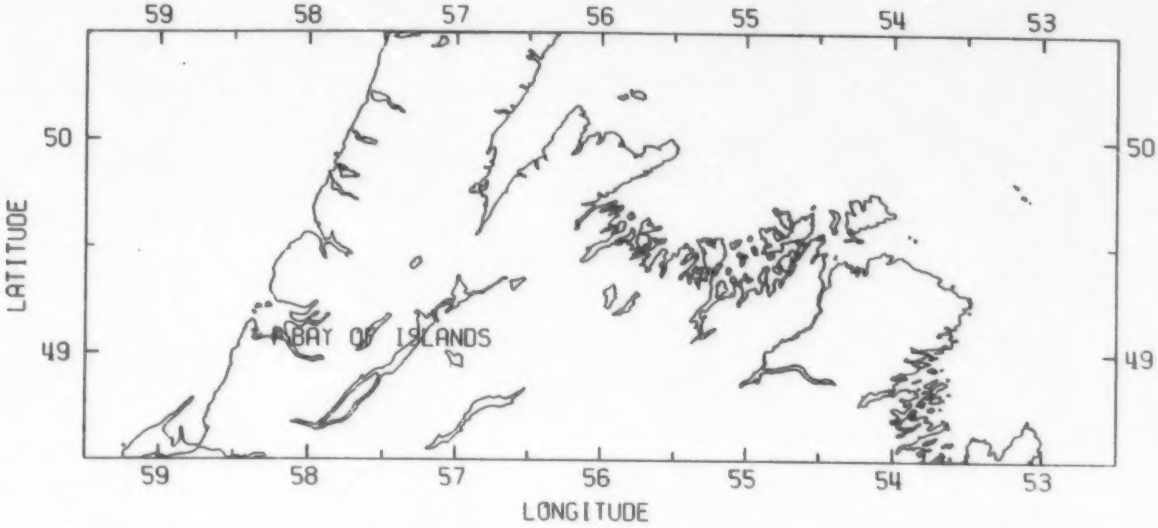
Appendix 14. Time Series Plots and Monthly Statistics from Unit Area 4Rd.

THERMOGRAPH DATA SUMMARY

STATION NAME:	BAY OF ISLANDS
STATION NUMBER:	193
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008A09
LATITUDE:	49.07° N
LONGITUDE:	58.23° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	9 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	8-NOV-1997 18:00 GMT
RECOVERY DATE/TIME:	29-MAY-1998 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	2.90	334	4.85	319	4.19	0.49	96.7	7.4	534
DEC-1997	-0.15	363	3.55	335	1.90	0.91	59.0	0.0	744
JAN-1998	-1.15	24	1.25	1	0.03	0.46	6.2	0.0	744
FEB-1998	-1.60	47	-0.10	32	-0.75	0.33	0.0	0.0	672
MAR-1998	-0.90	60	0.05	87	-0.54	0.16	0.0	0.0	744
APR-1998	-0.75	96	1.45	120	0.17	0.51	8.9	0.0	720
MAY-1998	0.35	123	6.10	140	3.11	1.46	91.5	7.1	685
Total Period	-1.60	47	6.10	140	1.04	1.86	262.3	14.4	4843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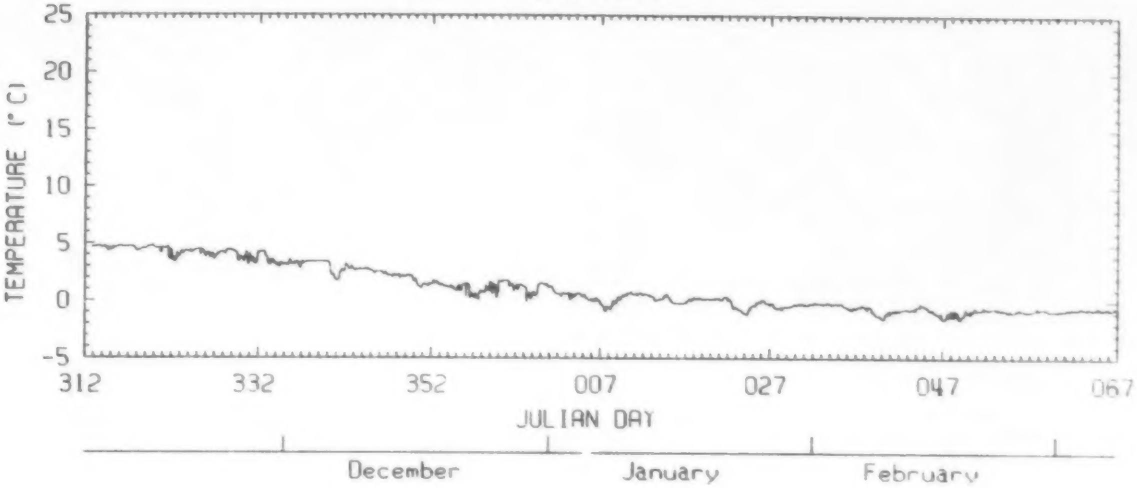
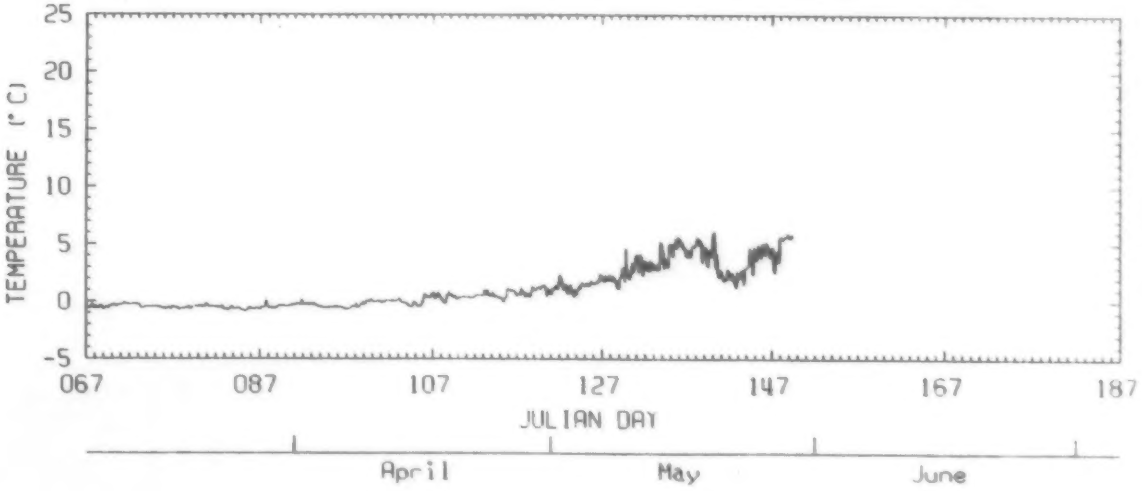
LATITUDE
BAY OF ISLANDS
LONGITUDE





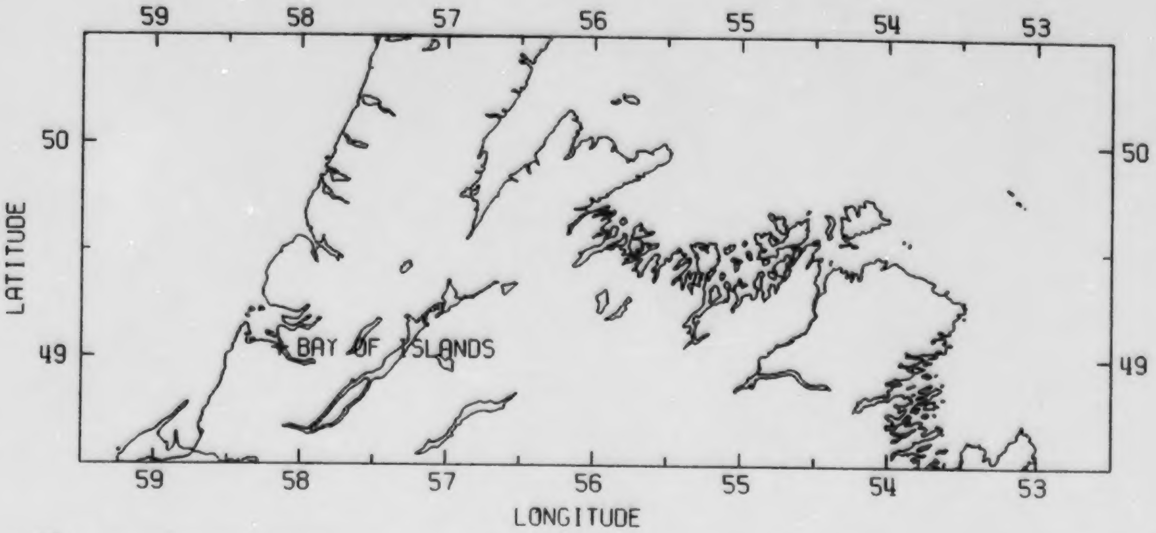
Start: 8-NOV-1997 End:29-MAY-1998 Inst. S/N:8A09

THERMOGRAPH DATA SUMMARY

STATION NAME:	BAY OF ISLANDS
STATION NUMBER:	193
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008966
LATITUDE:	49.04° N
LONGITUDE:	58.14° W
INSTRUMENT DEPTH:	8 m
WATER DEPTH:	8 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	8-NOV-1997 18:00 GMT
RECOVERY DATE/TIME:	9-APR-1998 06:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	2.75	334	4.75	319	4.08	0.50	94.1	5.7	534
DEC-1997	-0.30	363	3.40	335	1.77	0.92	54.8	0.0	744
JAN-1998	-1.35	24	1.10	1	-0.13	0.47	3.8	0.0	744
FEB-1998	-1.80	49	-0.25	32	-0.94	0.32	0.0	0.0	672
MAR-1998	-1.05	60	-0.15	87	-0.73	0.16	0.0	0.0	744
APR-1998	-0.85	96	-0.20	91	-0.59	0.14	0.0	0.0	199
Total Period	-1.80	49	4.75	319	0.58	1.82	152.8	5.7	3637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LATITUDE
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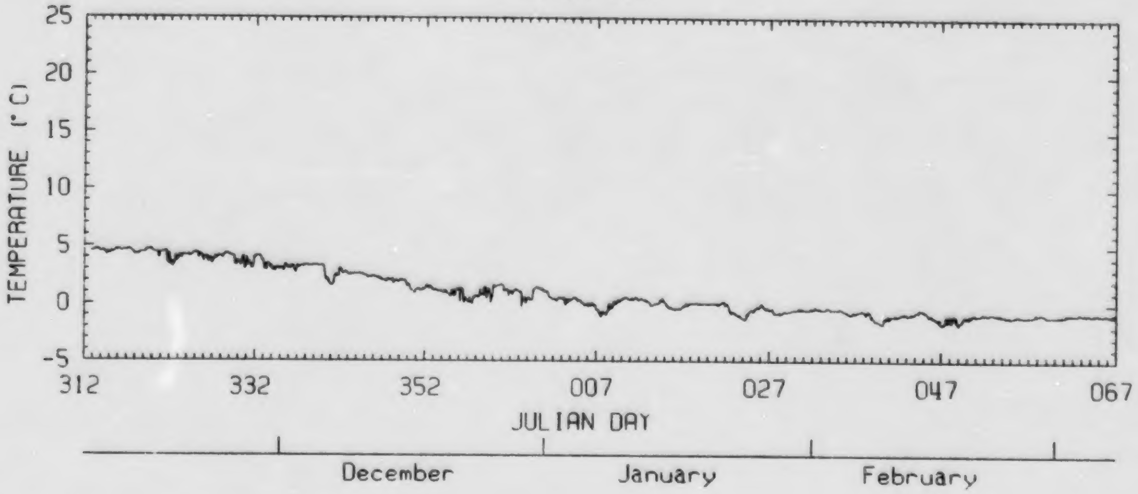
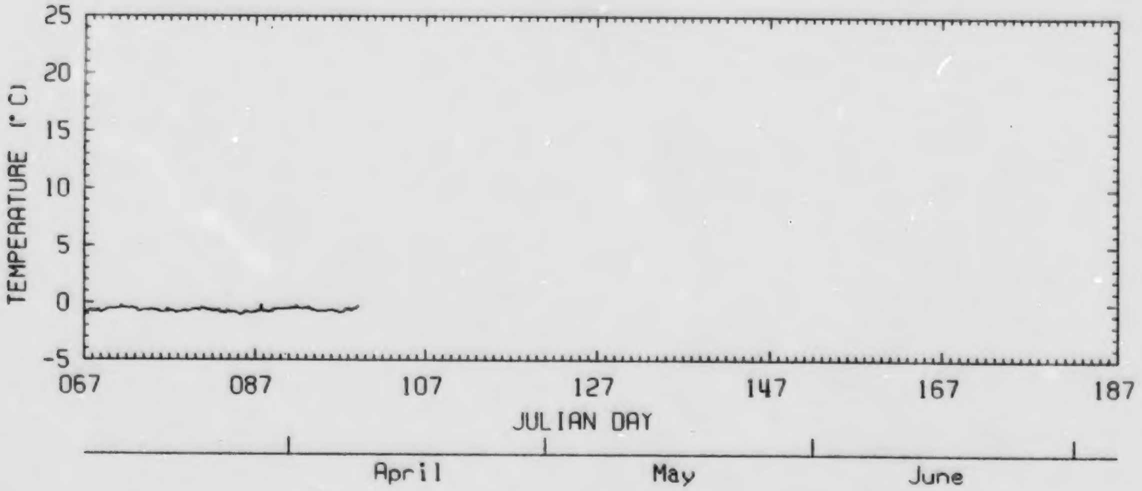
BAY OF ISLANDS
LONGITUDE





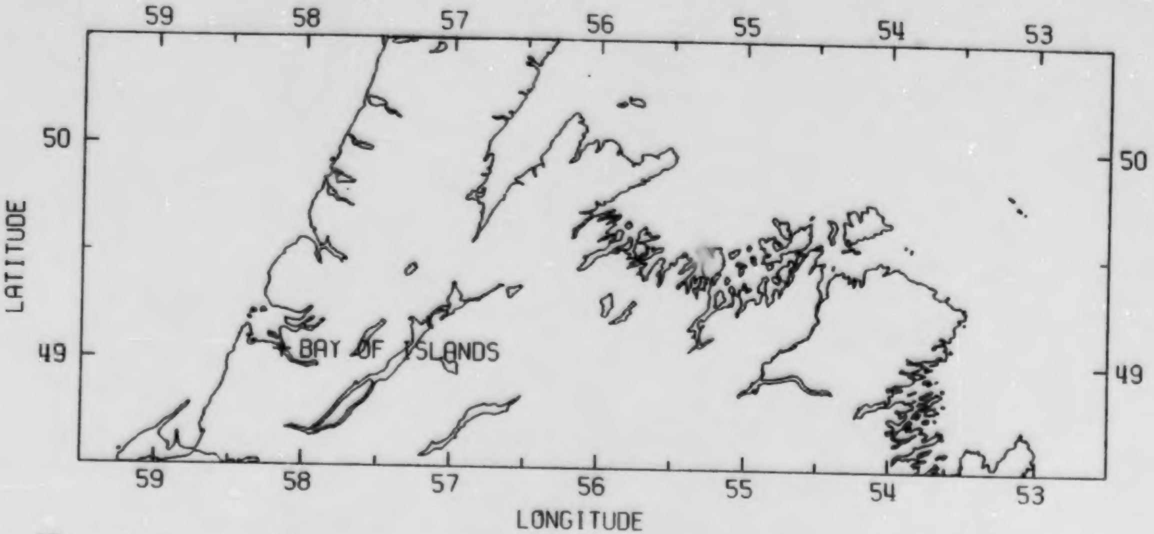
Start: 8-NOV-1997 End: 9-APR-1998 Inst. S/N:8966

THERMOGRAPH DATA SUMMARY

STATION NAME:	BAY OF ISLANDS
STATION NUMBER:	193
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008956
LATITUDE:	49.04° N
LONGITUDE:	58.14° W
INSTRUMENT DEPTH:	8 m
WATER DEPTH:	8 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	29-MAY-1998 12:00 GMT
RECOVERY DATE/TIME:	11-NOV-1998 19:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	3.50	150	6.75	150	5.65	0.55	16.9	4.9	60
JUN-1998	2.60	160	12.55	181	7.69	2.29	230.7	110.7	720
JUL-1998	5.95	182	16.55	211	13.11	2.18	406.3	282.3	744
AUG-1998	9.70	243	17.75	223	15.52	1.29	481.3	357.3	744
SEP-1998	2.00	250	14.75	244	11.13	2.30	333.9	213.9	720
OCT-1998	2.10	289	11.25	274	8.03	2.25	248.9	125.7	744
NOV-1998	5.65	308	6.70	307	6.25	0.26	68.7	24.7	260
Total Period	2.00	250	17.75	223	10.72	3.76	1786.6	1119.5	3992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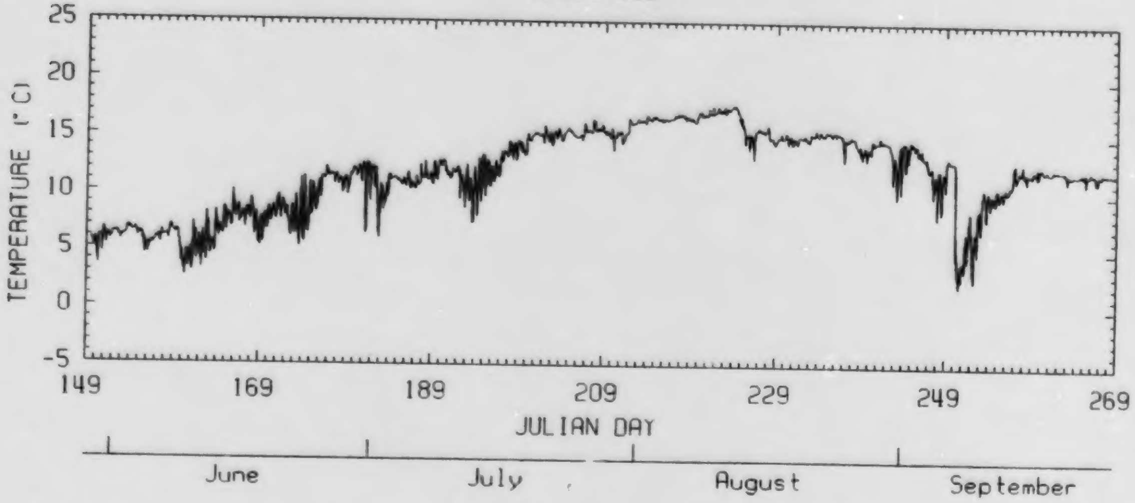
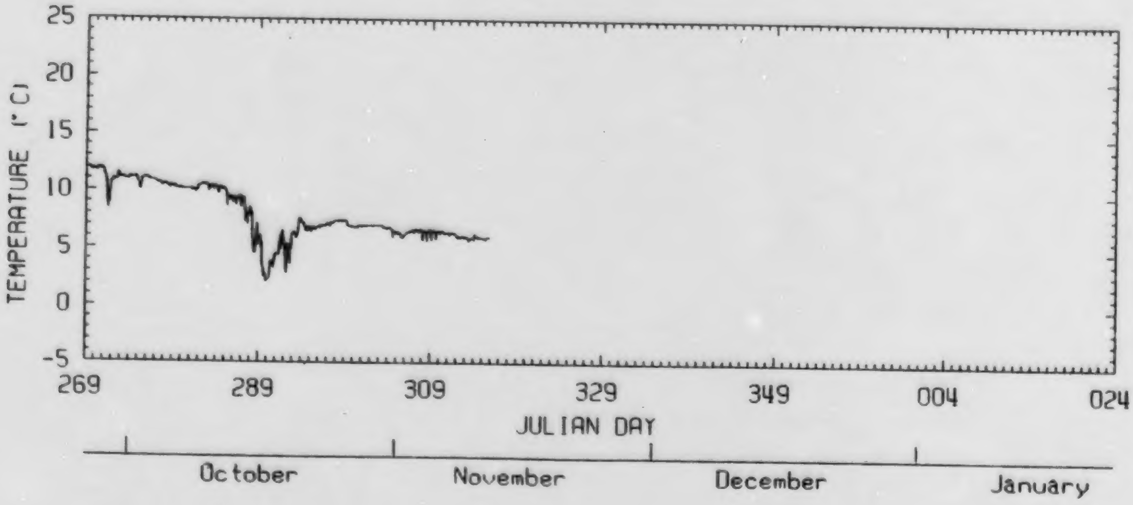
BAY OF ISLANDS





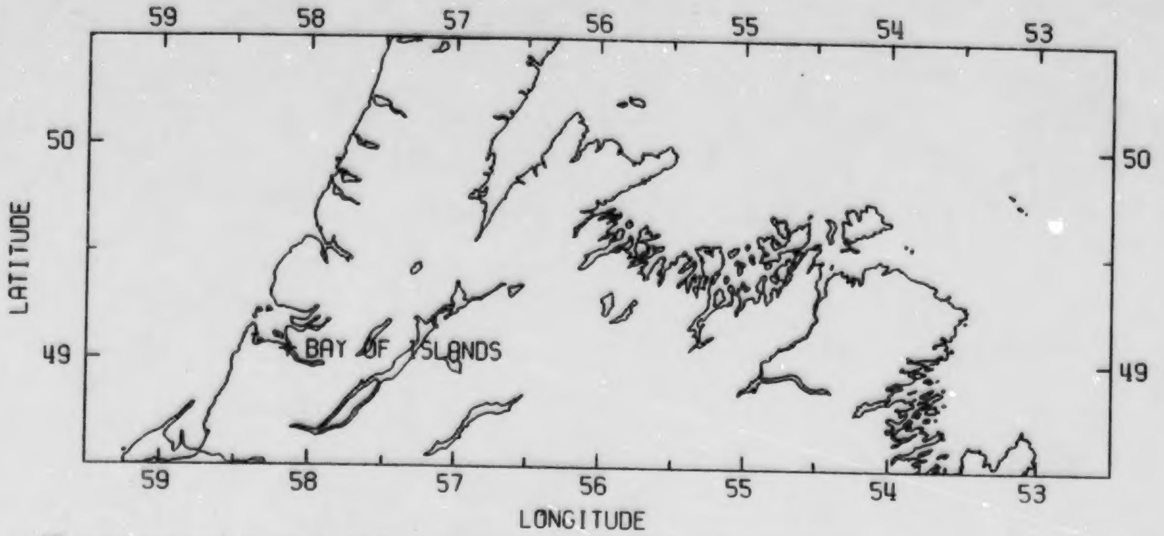
Start:29-MAY-1998 End:11-NOV-1998 Inst. S/N:8956

THERMOGRAPH DATA SUMMARY

STATION NAME:	BAY OF ISLANDS
STATION NUMBER:	193
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004346
LATITUDE:	49.04° N
LONGITUDE:	58.14° W
INSTRUMENT DEPTH:	8 m
WATER DEPTH:	8 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	29-MAY-1998 12:00 GMT
RECOVERY DATE/TIME:	11-NOV-1998 19:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	3.70	150	6.80	150	5.70	0.54	17.1	5.1	60
JUN-1998	2.60	160	12.60	181	7.76	2.27	232.7	112.7	720
JUL-1998	6.00	182	16.60	207	13.13	2.18	407.1	283.1	744
AUG-1998	9.80	243	17.80	223	15.55	1.29	482.0	358.0	744
SEP-1998	1.90	250	14.70	244	11.17	2.30	335.1	215.1	720
OCT-1998	2.10	289	11.30	274	8.07	2.25	250.1	127.0	744
NOV-1998	5.70	308	6.70	306	6.28	0.27	69.1	25.1	260
Total Period	1.90	250	17.80	223	10.76	3.75	1793.2	1126.0	3992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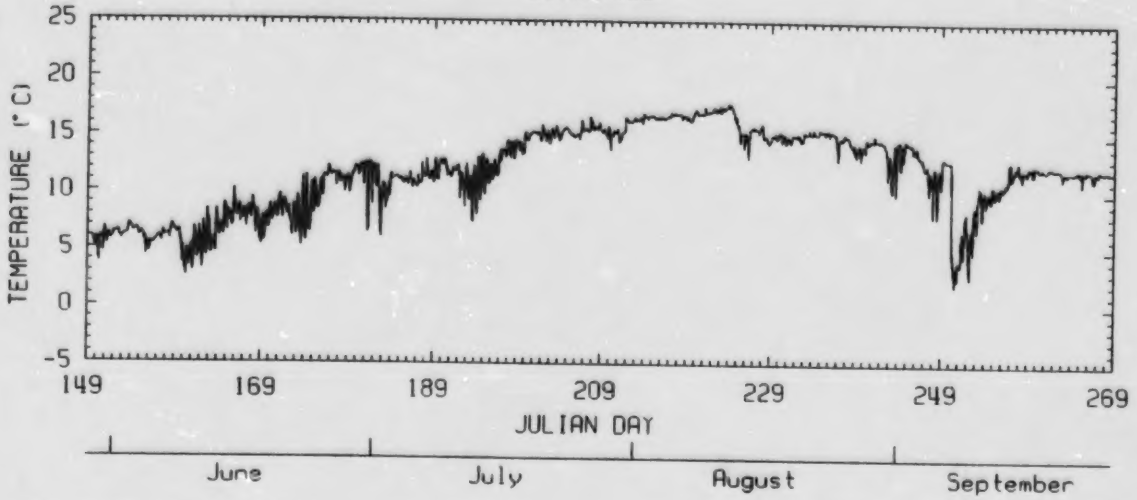
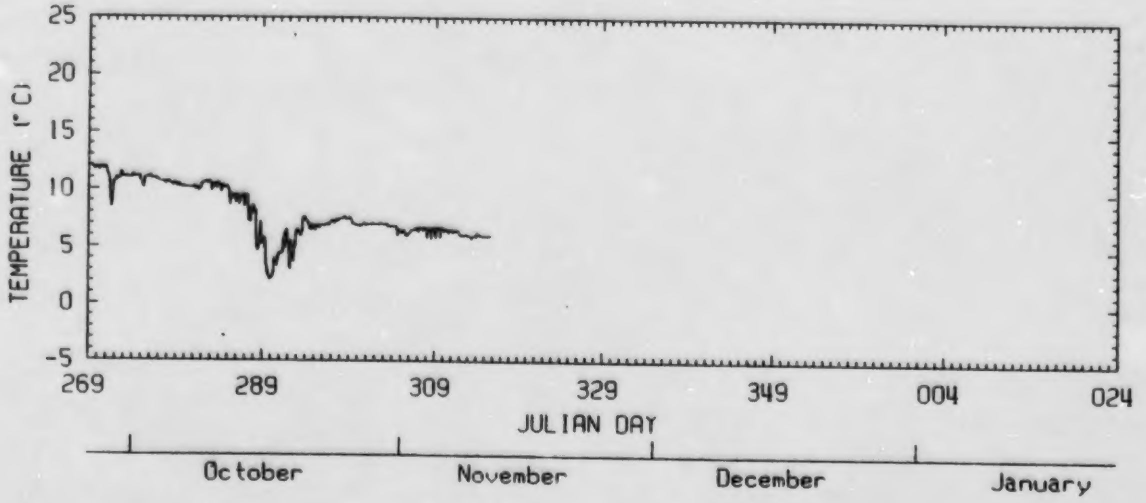
BAY OF ISLANDS
LONGITUDE





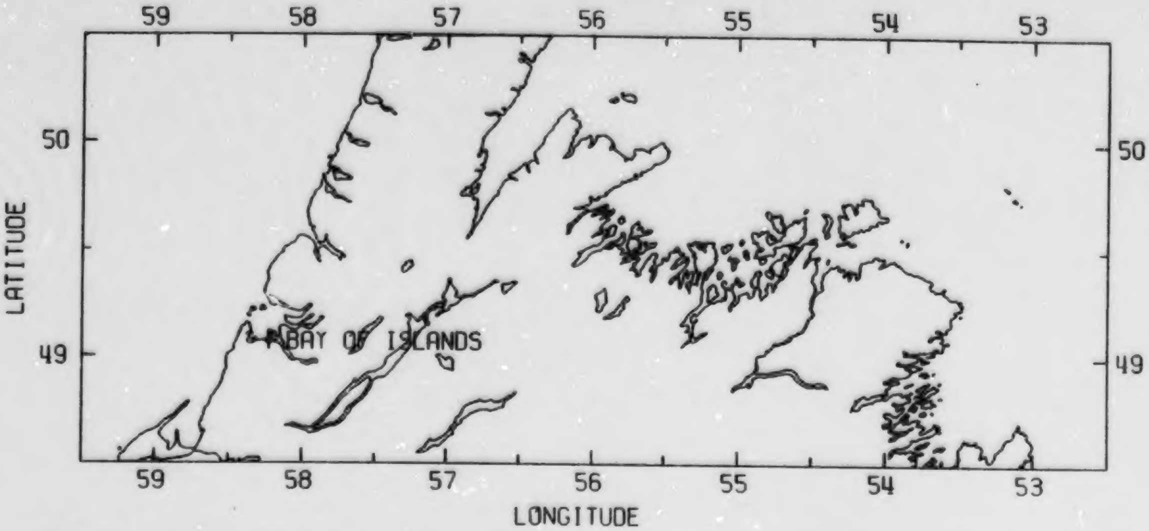
Start:29-MAY-1998 End:11-NOV-1998 Inst. S/N:4346

THERMOGRAPH DATA SUMMARY

STATION NAME:	BAY OF ISLANDS
STATION NUMBER:	193
INSTRUMENT TYPE:	Seamon Mini (Hugrun)
INSTRUMENT S/N:	00C147
LATITUDE:	49.07° N
LONGITUDE:	58.23° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	10 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	11-NOV-1998 20:00 GMT
RECOVERY DATE/TIME:	8-JUL-1999 23:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1998	3.90	316	6.02	316	4.87	0.45	98.3	18.3	460
DEC-1998	0.70	365	4.45	335	2.45	0.88	75.9	0.1	744
JAN-1999	-1.47	31	0.72	2	-0.21	0.50	3.6	0.0	744
FEB-1999	-1.62	32	-0.02	39	-0.88	0.34	0.0	0.0	672
MAR-1999	-1.05	60	0.50	90	-0.48	0.29	0.4	0.0	744
APR-1999	-0.15	91	2.87	115	0.66	0.65	20.0	0.0	720
MAY-1999	0.72	122	7.02	150	3.41	1.39	105.6	7.9	744
JUN-1999	4.65	155	12.37	178	8.58	1.62	257.3	137.3	720
JUL-1999	9.25	182	13.72	187	12.49	0.67	100.0	68.0	192
Total Period	-1.62	32	13.72	187	2.53	3.64	660.9	231.5	5740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BAY OF ISLANDS
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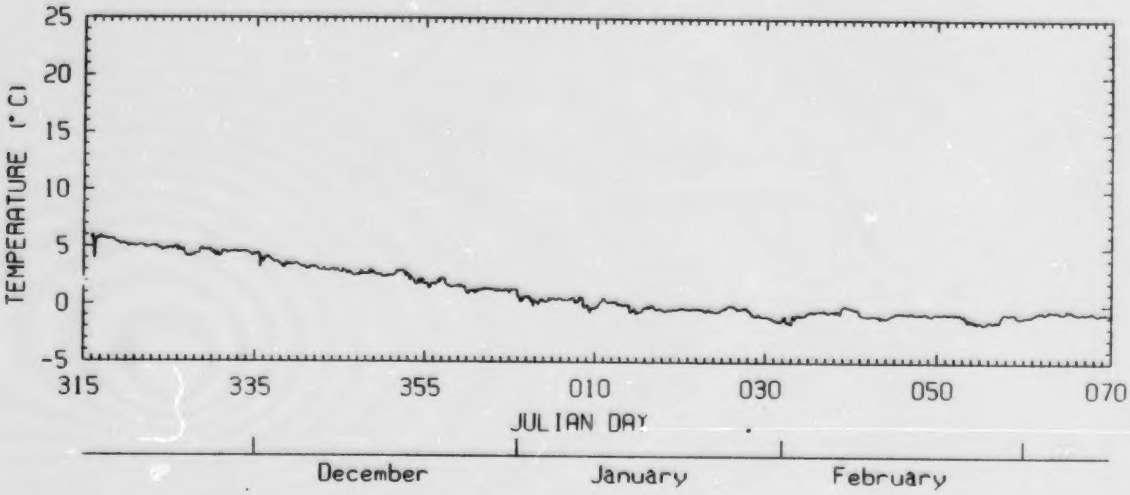
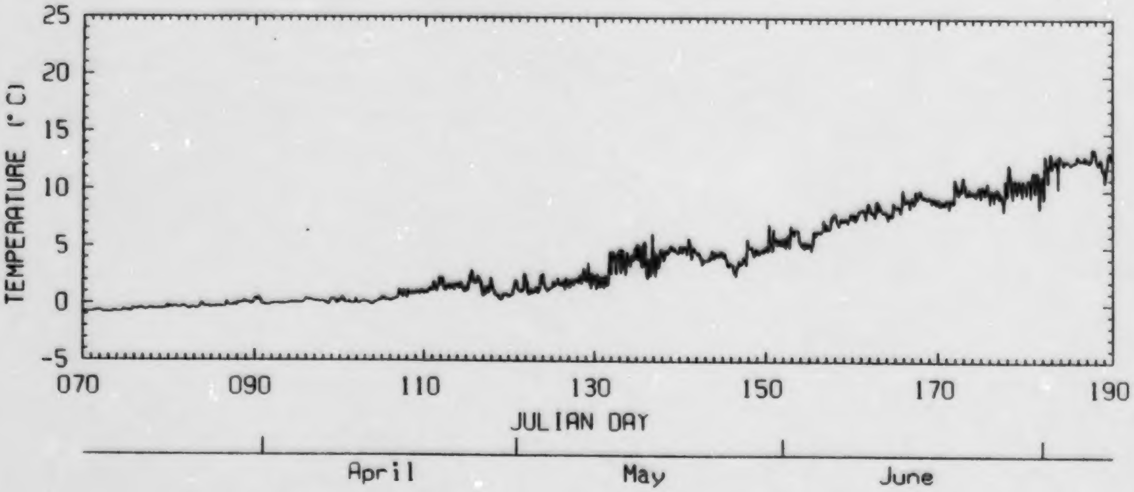




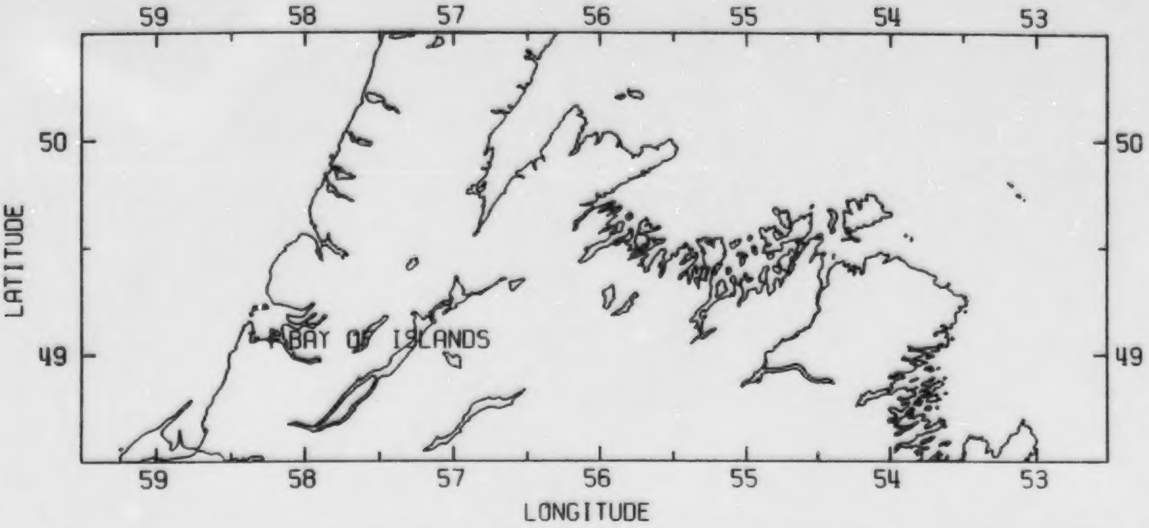
Start:11-NOV-1998 End: 8-JUL-1999 Inst. S/N:C147

THERMOGRAPH DATA SUMMARY

STATION NAME: BAY OF ISLANDS
STATION NUMBER: 193
INSTRUMENT TYPE: Minilog-T (Vemco)
INSTRUMENT S/N: 003821
LATITUDE: 49.07° N
LONGITUDE: 58.23° W
INSTRUMENT DEPTH: 8 m
WATER DEPTH: 8 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 11-NOV-1998 20:00 GMT
RECOVERY DATE/TIME: 8-JUL-1999 23:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1998	4.00	316	6.00	315	4.92	0.48	99.2	19.2	460
DEC-1998	0.80	365	4.50	335	2.50	0.87	77.4	0.1	744
JAN-1999	-1.50	31	0.80	1	-0.18	0.53	4.4	0.0	744
FEB-1999	-1.60	32	0.00	39	-0.87	0.34	0.0	0.0	672
MAR-1999	-1.00	60	0.60	90	-0.47	0.30	0.5	0.0	744
APR-1999	-0.10	91	2.90	115	0.70	0.65	21.2	0.0	720
MAY-1999	0.80	122	7.00	150	3.44	1.39	106.7	8.4	744
JUN-1999	4.60	155	12.40	178	8.61	1.61	258.3	138.3	720
JUL-1999	9.10	182	13.70	187	12.53	0.66	100.3	68.3	192
Total Period	-1.60	32	13.70	187	2.57	3.64	667.9	234.4	5740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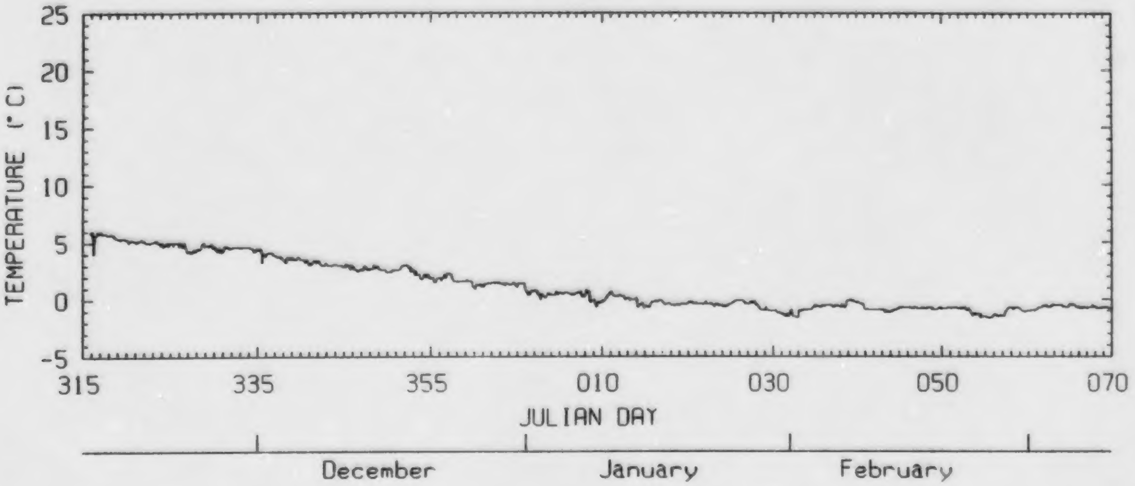
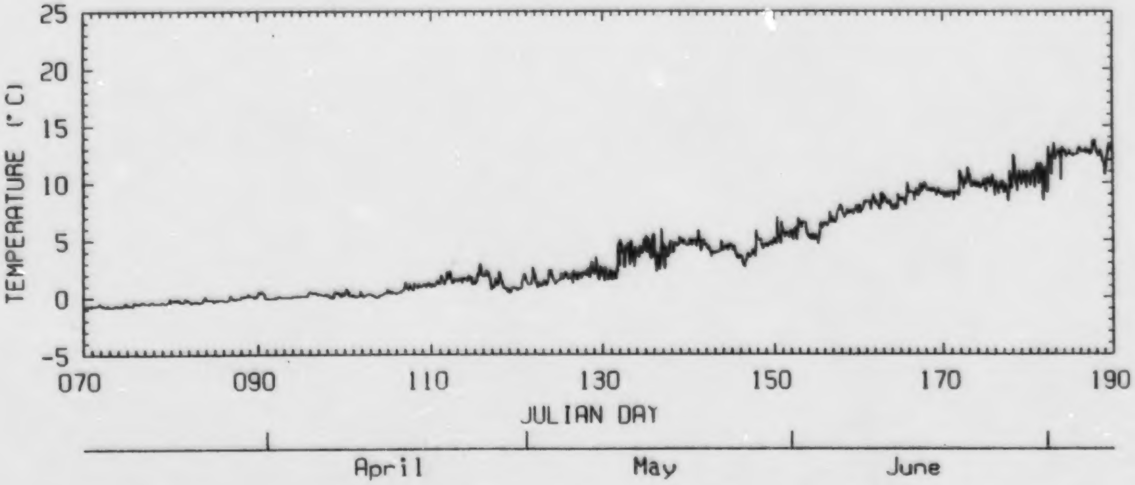




Start:11-NOV-1998 End: 8-JUL-1999 Inst. S/N:3821

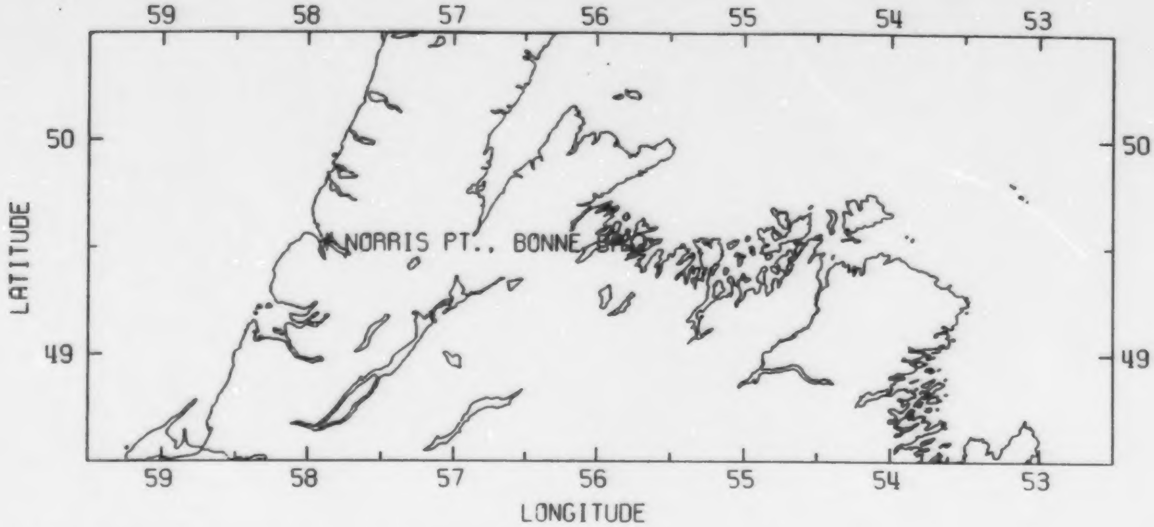
Appendix 15. Time Series Plots and Monthly Statistics from Unit Area 4Rc.

THERMOGRAPH DATA SUMMARY

STATION NAME:	NORRIS PT., BONNE BAY
STATION NUMBER:	192
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007937
LATITUDE:	49.52° N
LONGITUDE:	57.87° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	10 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	6-NOV-1997 16:00 GMT
RECOVERY DATE/TIME:	1-MAY-1998 19:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	2.95	334	4.90	316	3.92	0.40	94.2	3.2	564
DEC-1997	0.20	360	3.30	335	2.00	0.86	61.9	0.0	744
JAN-1998	-1.10	10	1.35	2	-0.17	0.40	2.6	0.0	744
FEB-1998	-1.20	40	0.30	59	-0.44	0.26	0.1	0.0	672
MAR-1998	-0.75	82	0.65	61	-0.17	0.23	0.8	0.0	744
APR-1998	-0.45	91	1.80	115	0.45	0.44	14.2	0.0	720
MAY-1998	0.80	121	1.25	121	1.05	0.10	1.0	0.0	20
Total Period	-1.20	40	4.90	316	0.83	1.55	174.8	3.2	4208


NORRIS PT., BONNE BAY
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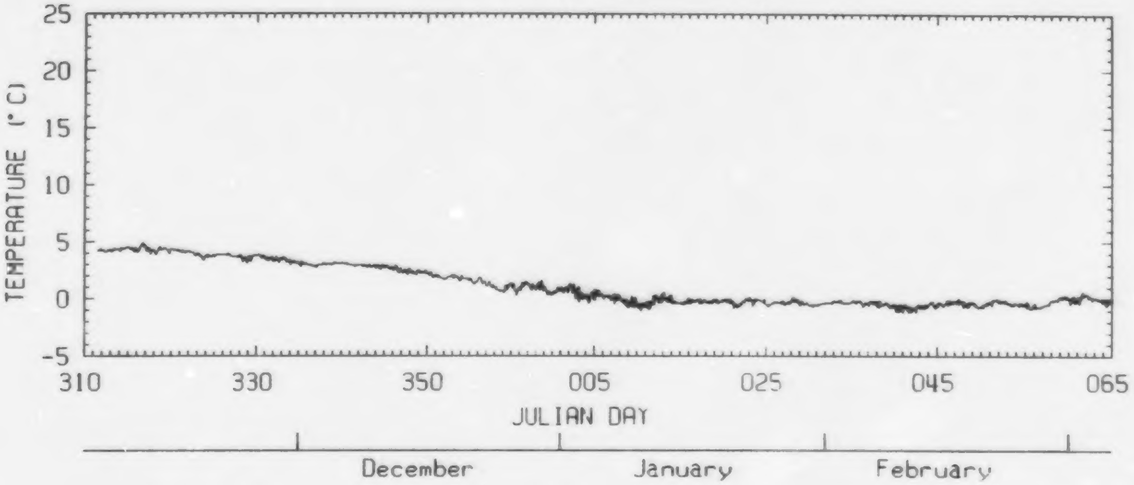
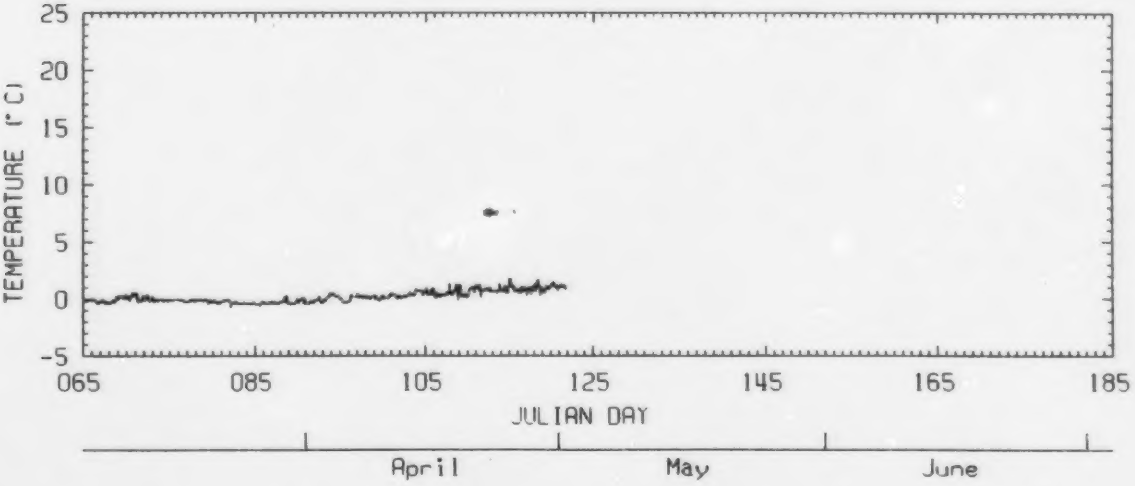




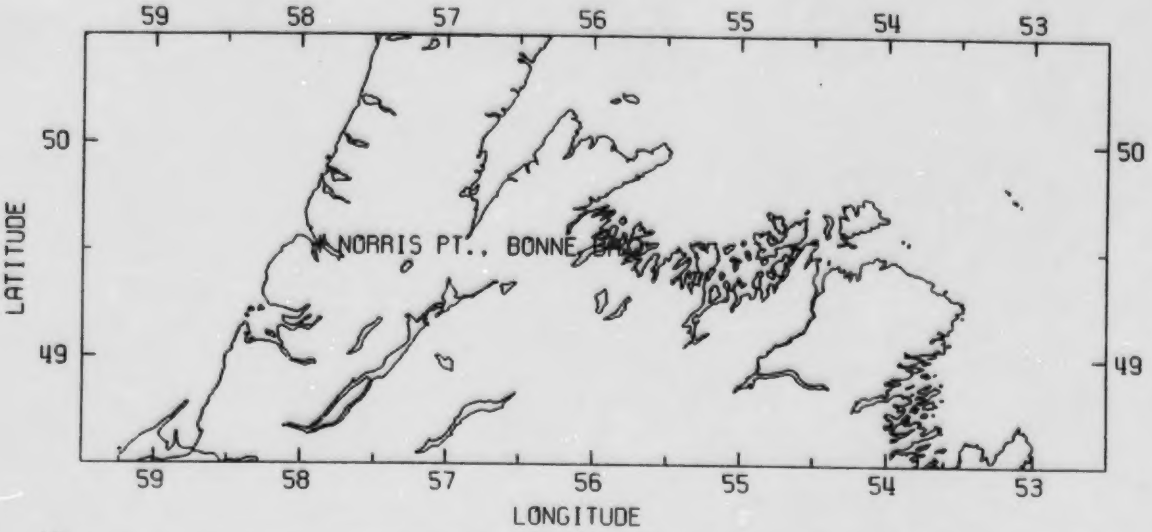
Start: 6-NOV-1997 End: 1-MAY-1998 Inst. S/N:7937

THERMOGRAPH DATA SUMMARY

STATION NAME:	NORRIS PT., BONNE BAY
STATION NUMBER:	192
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007930
LATITUDE:	49.52° N
LONGITUDE:	57.87° W
INSTRUMENT DEPTH:	10 m
WATER DEPTH:	10 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	6-NOV-1997 16:00 GMT
RECOVERY DATE/TIME:	1-MAY-1998 19:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	2.90	328	4.90	316	3.91	0.39	94.0	3.0	564
DEC-1997	0.15	360	3.30	335	1.99	0.86	61.6	0.0	744
JAN-1998	-1.15	10	1.30	2	-0.21	0.40	2.3	0.0	744
FEB-1998	-1.25	41	0.20	59	-0.47	0.25	0.1	0.0	672
MAR-1998	-0.70	64	0.55	61	-0.21	0.22	0.5	0.0	744
APR-1998	-0.50	91	1.80	115	0.41	0.44	13.2	0.0	720
MAY-1998	0.75	121	1.25	121	1.03	0.10	1.0	0.0	20
Total Period	-1.25	41	4.90	316	0.80	1.56	172.7	3.0	4208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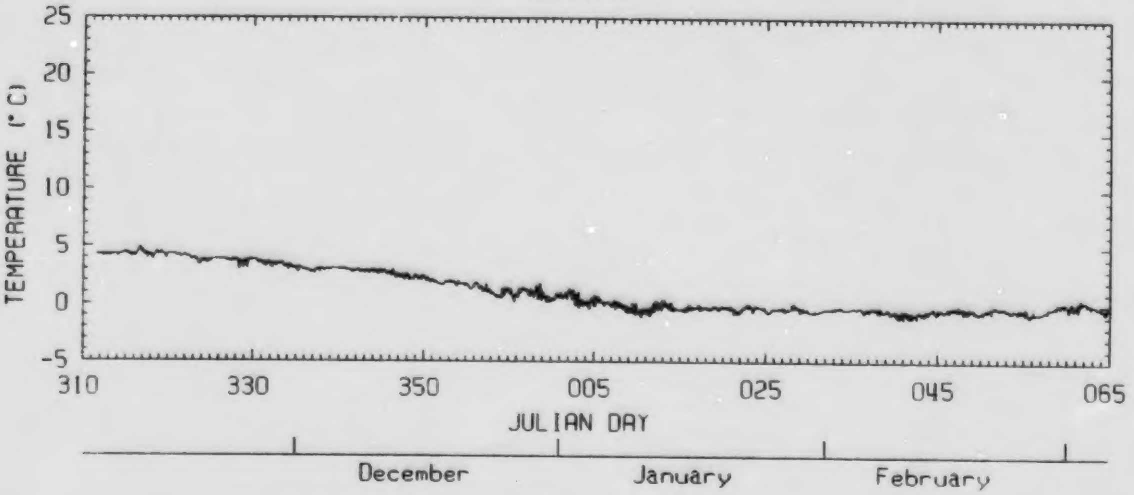
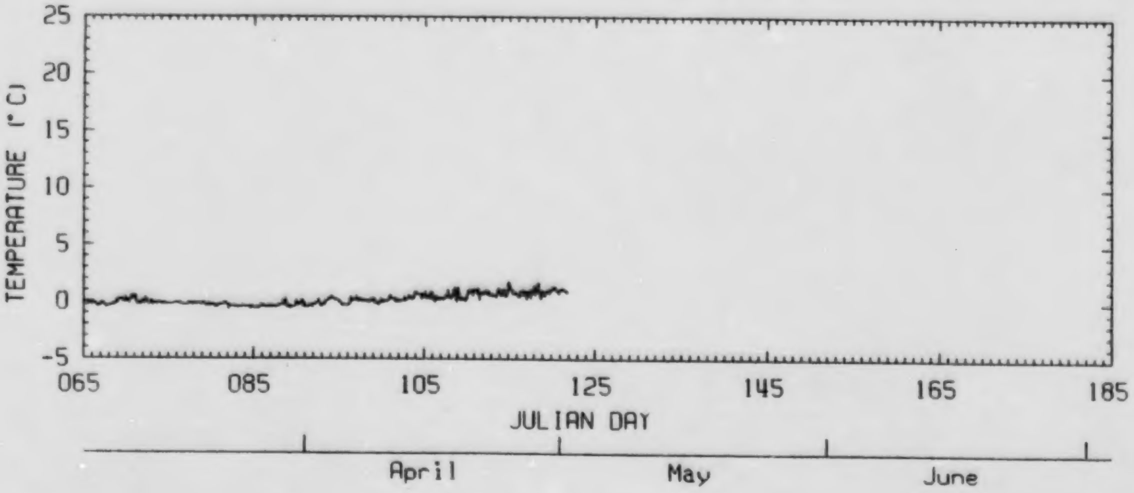
LONGITUDE
NORRIS PT., BONNE BAY





Start: 6-NOV-1997 End: 1-MAY-1998 Inst. S/N:7930

THERMOGRAPH DATA SUMMARY

STATION NAME: NORRIS PT., BONNE BAY

STATION NUMBER: 192

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 007873

LATITUDE: 49.52° N

LONGITUDE: 57.87° W

INSTRUMENT DEPTH: 10 m

WATER DEPTH: 10 m

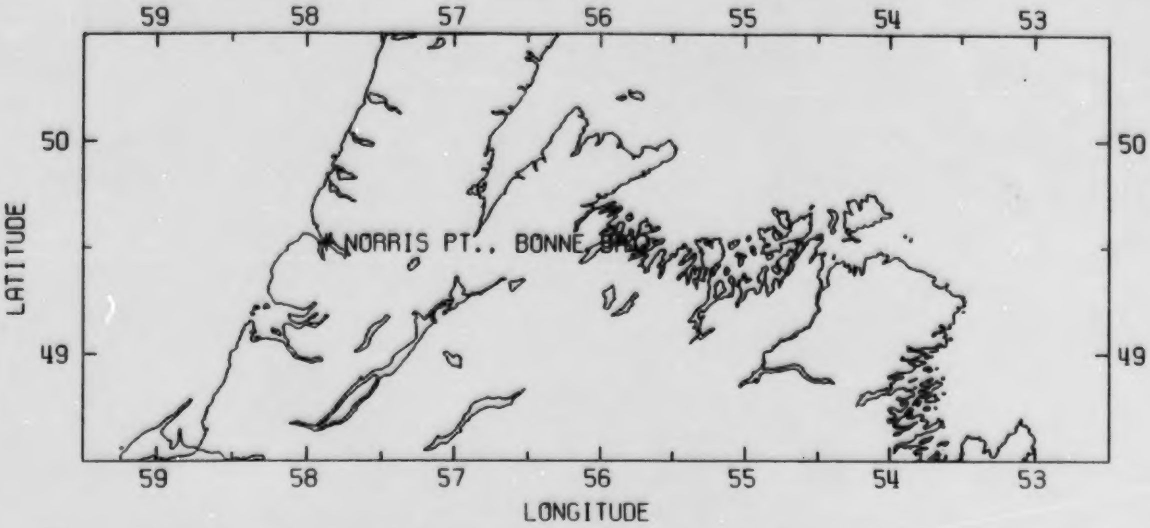
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 13-JUN-1998 19:00 GMT

RECOVERY DATE/TIME: 14-DEC-1998 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	4.30	165	11.00	175	7.69	1.61	136.5	64.5	413
JUL-1998	6.05	182	16.35	211	11.75	2.16	364.2	240.2	744
AUG-1998	12.45	242	17.70	224	14.88	1.12	461.3	337.3	744
SEP-1998	6.70	253	13.90	246	10.49	1.50	314.6	194.6	720
OCT-1998	6.30	291	11.15	274	8.63	1.19	267.4	143.4	744
NOV-1998	4.00	331	7.10	307	5.56	0.87	166.8	46.8	720
DEC-1998	2.45	347	4.60	335	3.43	0.50	47.8	0.1	328
Total Period	2.45	347	17.70	224	9.54	3.69	1758.6	1026.9	4413



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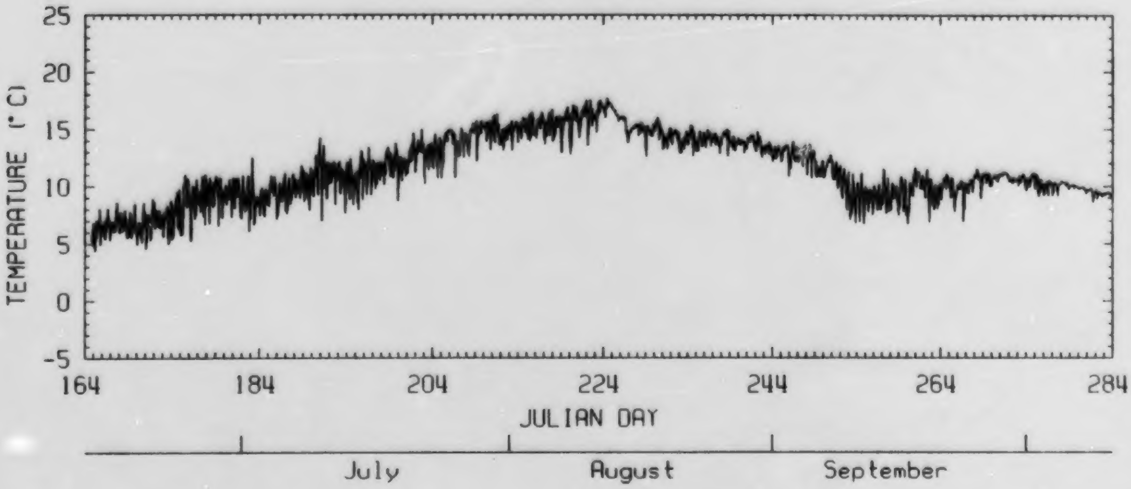
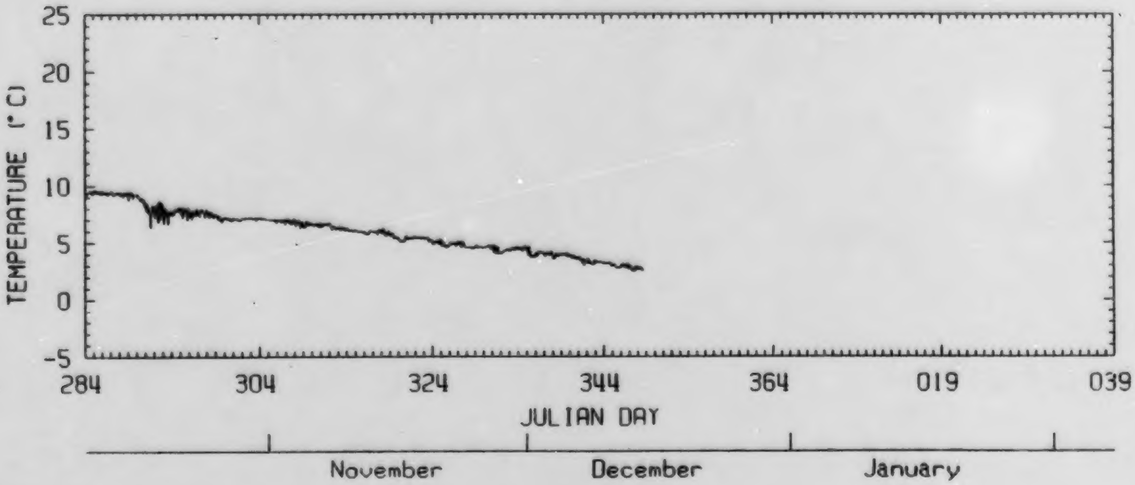
NORRIS PT., BONNE BAY





Start: 13-JUN-1998 End: 14-DEC-1998 Inst. S/N: 7873

THERMOGRAPH DATA SUMMARY

STATION NAME: NORRIS PT., BONNE BAY

STATION NUMBER: 192

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 004333

LATITUDE: 49.52° N

LONGITUDE: 57.87° W

INSTRUMENT DEPTH: 10 m

WATER DEPTH: 10 m

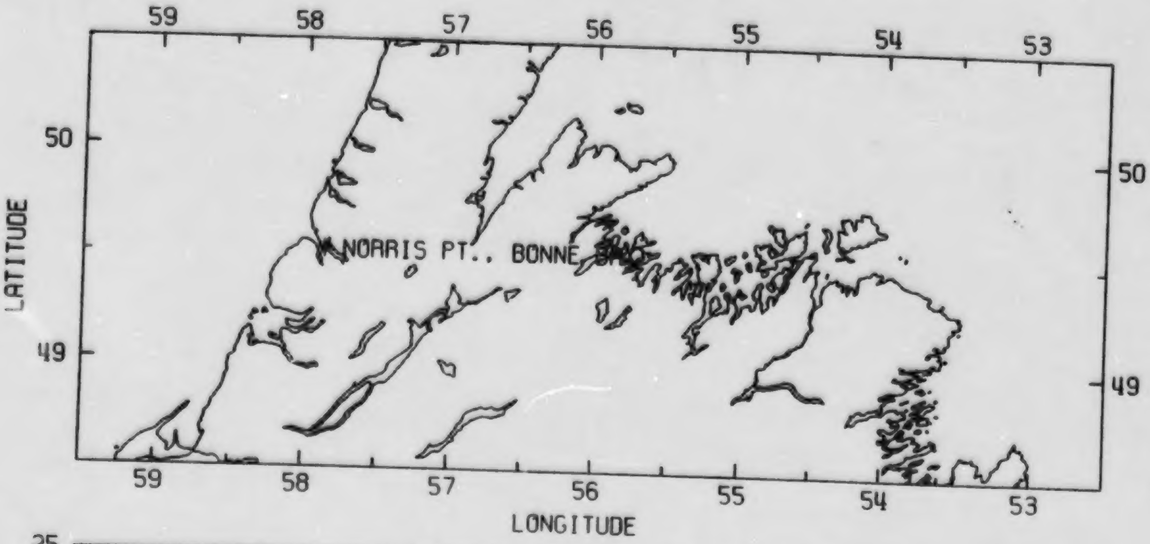
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 14-DEC-1998 16:00 GMT

RECOVERY DATE/TIME: 16-JUN-1999 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
DEC-1998	0.20	364	3.00	353	1.87	0.70	34.2	0.0	416
JAN-1999	-0.40	7	1.55	1	0.68	0.42	21.3	0.0	744
FEB-1999	-0.55	51	1.45	32	0.32	0.38	9.2	0.0	672
MAR-1999	-0.60	66	0.90	63	-0.12	0.28	1.8	0.0	744
APR-1999	-0.50	91	2.80	118	0.49	0.49	15.2	0.0	720
MAY-1999	0.35	121	5.60	151	2.54	1.28	78.7	0.4	744
JUN-1999	3.25	155	8.50	166	5.38	0.92	86.8	22.8	375
Total Period	-0.60	66	8.50	166	1.29	1.69	247.1	23.2	4415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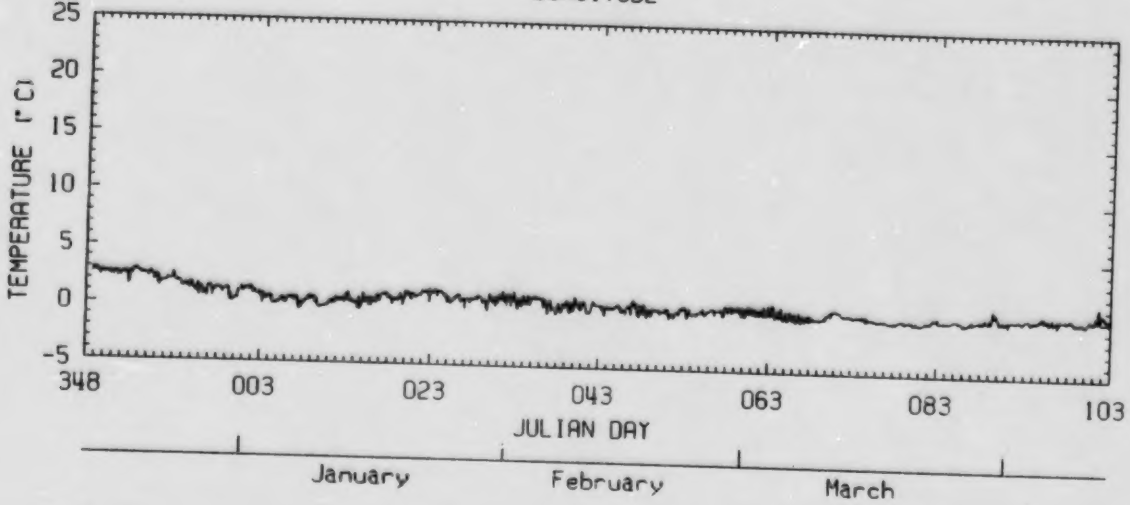
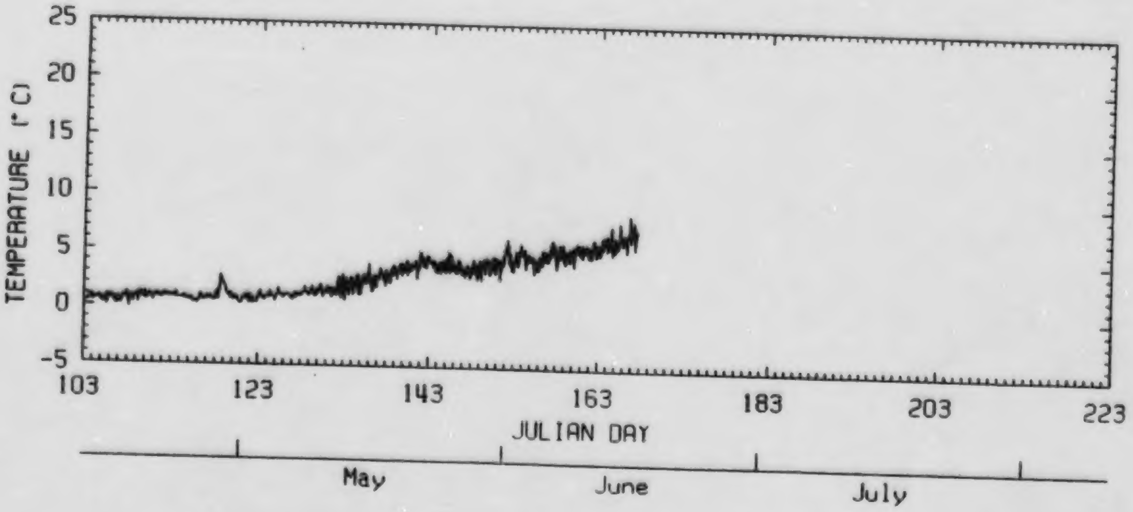




Start: 14-DEC-1998 End: 16-JUN-1999 Inst. S/N:4333

THERMOGRAPH DATA SUMMARY

STATION NAME: NORRIS PT., BONNE BAY

STATION NUMBER: 192

INSTRUMENT TYPE: Minilog-T (Vemco)

INSTRUMENT S/N: 006250

LATITUDE: 49.52° N

LONGITUDE: 57.87° W

INSTRUMENT DEPTH: 10 m

WATER DEPTH: 10 m

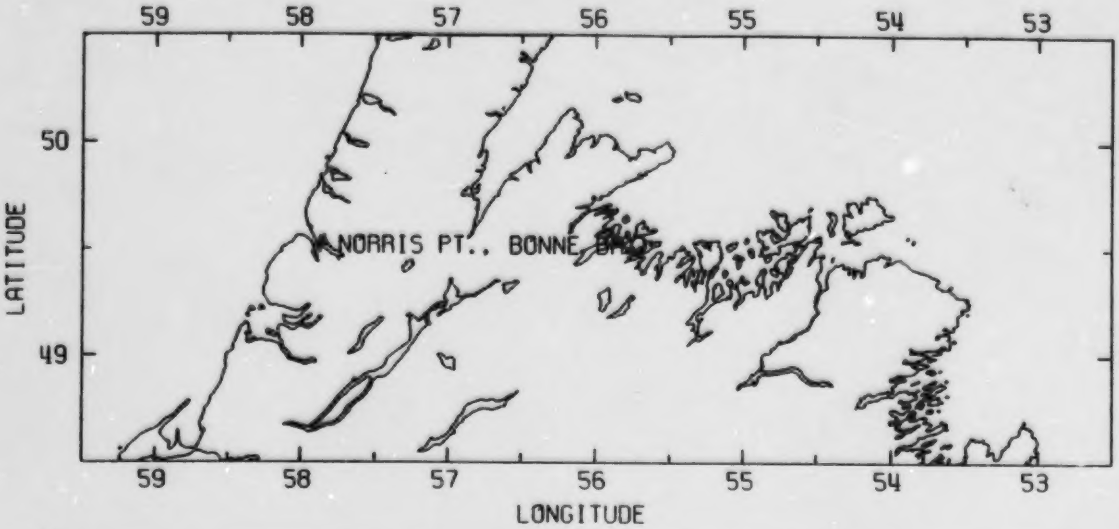
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 14-DEC-1998 16:00 GMT

RECOVERY DATE/TIME: 16-JUN-1999 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
DEC-1998	0.40	364	3.10	353	1.99	0.68	36.3	0.0	416
JAN-1999	-0.30	7	1.70	1	0.86	0.41	26.8	0.0	744
FEB-1999	-0.30	36	1.60	32	0.52	0.38	14.5	0.0	672
MAR-1999	-0.40	66	1.10	63	0.10	0.30	4.4	0.0	744
APR-1999	-0.30	91	3.40	118	0.75	0.50	22.6	0.0	720
MAY-1999	0.70	121	5.30	141	2.79	1.27	86.6	1.7	744
JUN-1999	3.40	152	9.00	167	5.70	0.94	91.8	27.8	376
Total Period	-0.40	66	9.00	167	1.51	1.72	283.1	29.5	4416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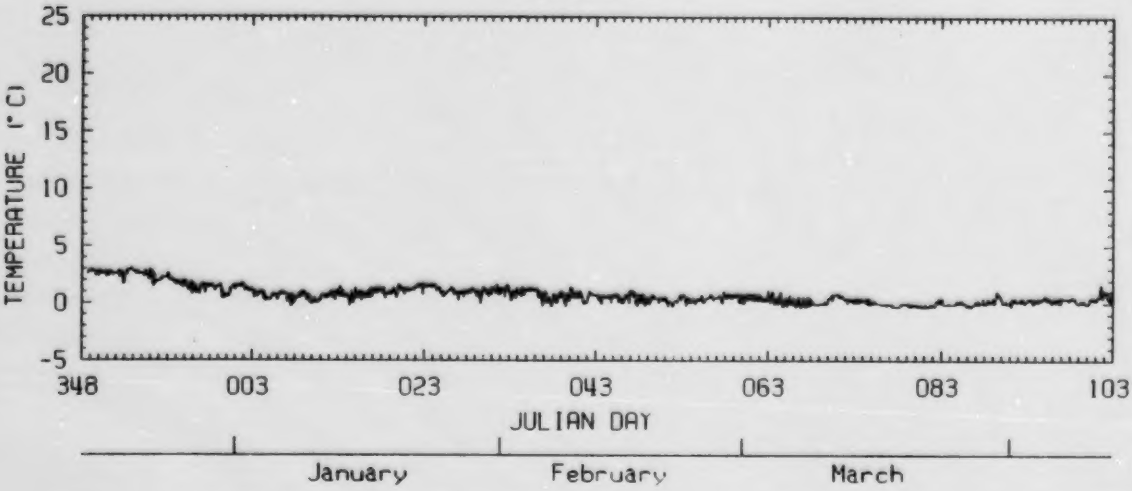
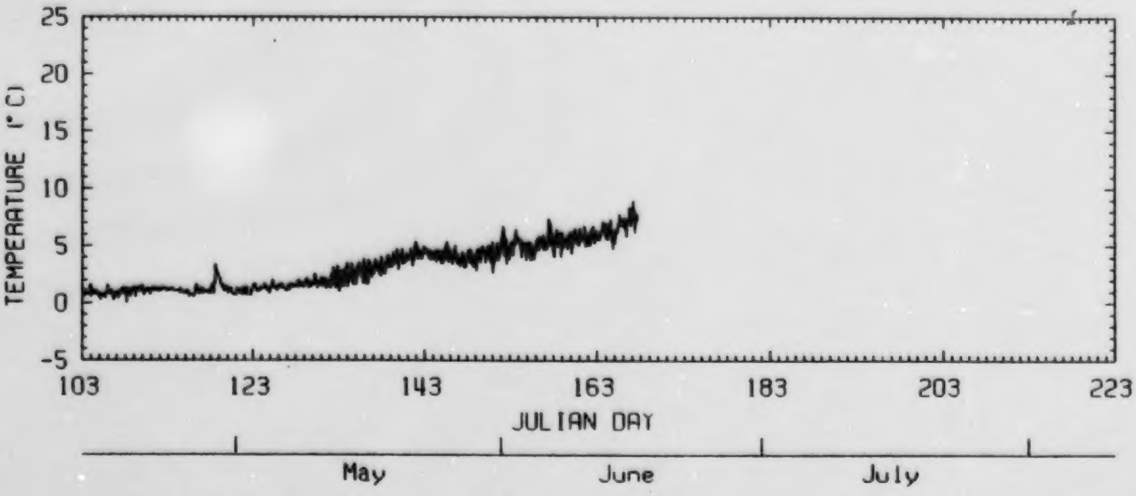




Start:14-DEC-1998 End:16-JUN-1999 Inst. S/N:6250

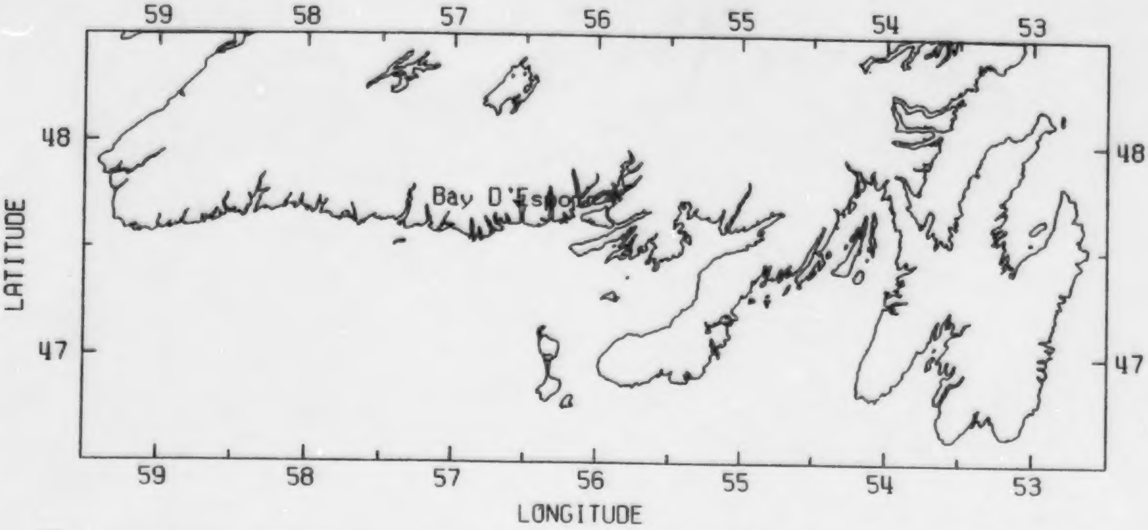
Appendix 16. Time Series Plots and Monthly Statistics from Freshwater Sites around Newfoundland and Labrador.

THERMOGRAPH DATA SUMMARY

STATION NAME:	Bay D'Espoir
STATION NUMBER:	246
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006438
LATITUDE:	47.74° N
LONGITUDE:	55.89° W
INSTRUMENT DEPTH:	9 m
WATER DEPTH:	40 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	10-MAY-1999 14:00 GMT
RECOVERY DATE/TIME:	14-OCT-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	2.60	145	14.50	140	8.45	2.40	187.2	99.2	514
JUN-1999	5.60	156	17.10	181	11.85	2.18	355.4	235.4	720
JUL-1999	9.60	182	19.10	199	15.51	1.79	481.0	357.0	744
AUG-1999	8.60	224	19.90	217	14.79	2.15	458.5	334.5	744
SEP-1999	9.50	244	15.90	255	14.08	1.00	422.3	302.3	720
OCT-1999	10.20	287	13.80	274	12.27	0.64	171.4	115.4	326
Total Period	2.60	145	19.90	217	13.15	2.94	2075.8	1443.8	3768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LATITUDE
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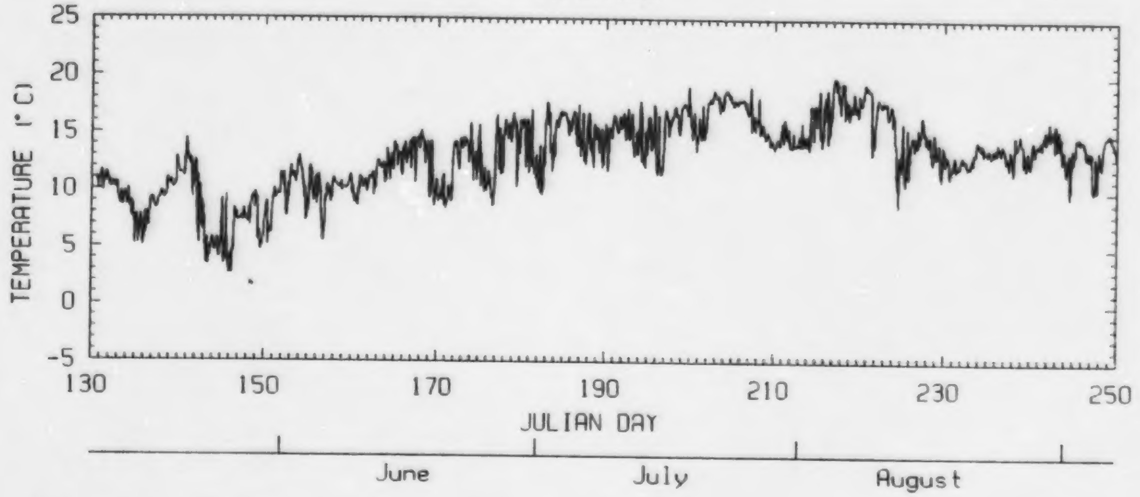
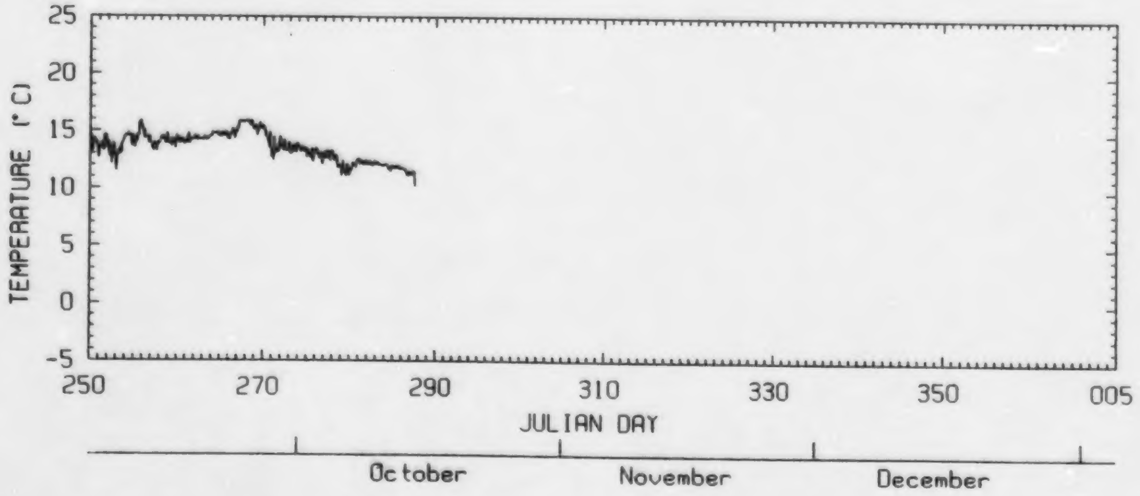
Bay D'Espoir





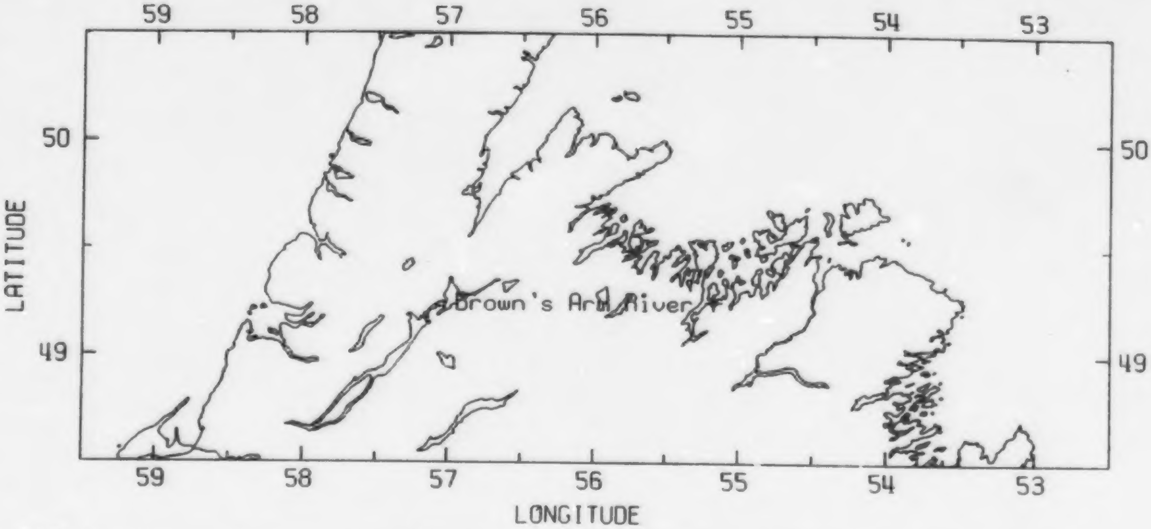
Start:10-MAY-1999 End:14-OCT-1999 Inst. S/N:6438

THERMOGRAPH DATA SUMMARY

STATION NAME:	Brown's Arm River
STATION NUMBER:	248
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007943
LATITUDE:	49.25° N
LONGITUDE:	55.17° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	24-JUN-1999 14:00 GMT
RECOVERY DATE/TIME:	20-OCT-1999 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	12.75	179	24.00	175	17.62	2.56	125.9	97.9	154
JUL-1999	9.75	188	24.10	182	16.86	3.05	522.6	398.6	744
AUG-1999	10.80	237	25.85	214	16.88	2.75	523.3	399.3	744
SEP-1999	6.45	271	21.70	254	14.18	2.80	425.5	305.5	720
OCT-1999	-0.10	292	13.90	274	7.61	3.06	148.5	75.0	467
Total Period	-0.10	292	25.85	214	14.70	4.43	1745.8	1276.3	2829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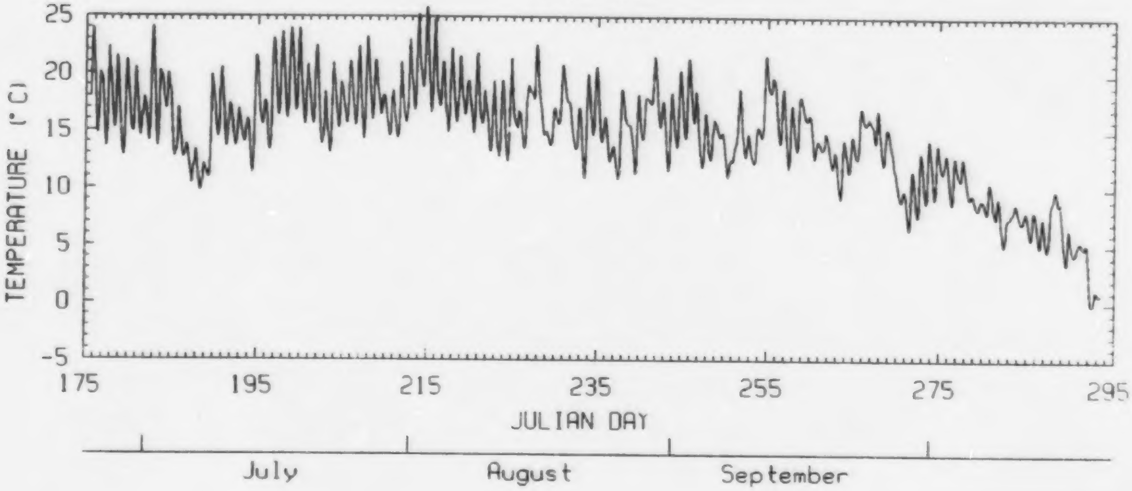
Brown's Arm River
LONGITUDE



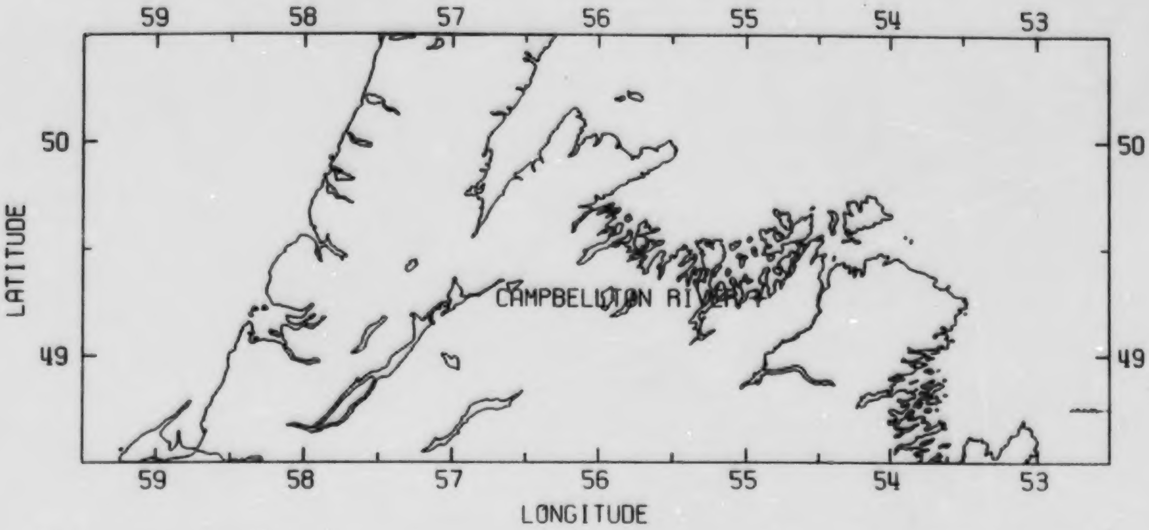
Start: 24-JUN-1999 End: 20-OCT-1999 Inst. S/N: 7943

THERMOGRAPH DATA SUMMARY

STATION NAME:	CAMPBELLTON RIVER
STATION NUMBER:	181
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006646
LATITUDE:	49.27° N
LONGITUDE:	54.92° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	14-APR-1998 20:00 GMT
RECOVERY DATE/TIME:	16-SEP-1998 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
APR-1998	1.15	106	5.90	120	3.16	1.04	52.2	1.1	388
MAY-1998	5.35	139	15.15	146	10.53	2.28	326.3	202.3	744
JUN-1998	10.10	160	23.70	168	16.29	3.58	488.7	368.7	720
JUL-1998	14.50	192	24.35	198	20.06	2.16	621.8	497.8	744
AUG-1998	14.30	242	26.20	223	19.33	2.60	599.2	475.2	744
SEP-1998	11.90	250	17.80	245	15.11	1.59	242.0	178.0	372
Total Period	1.15	106	26.20	223	15.01	5.84	2330.2	1723.2	3712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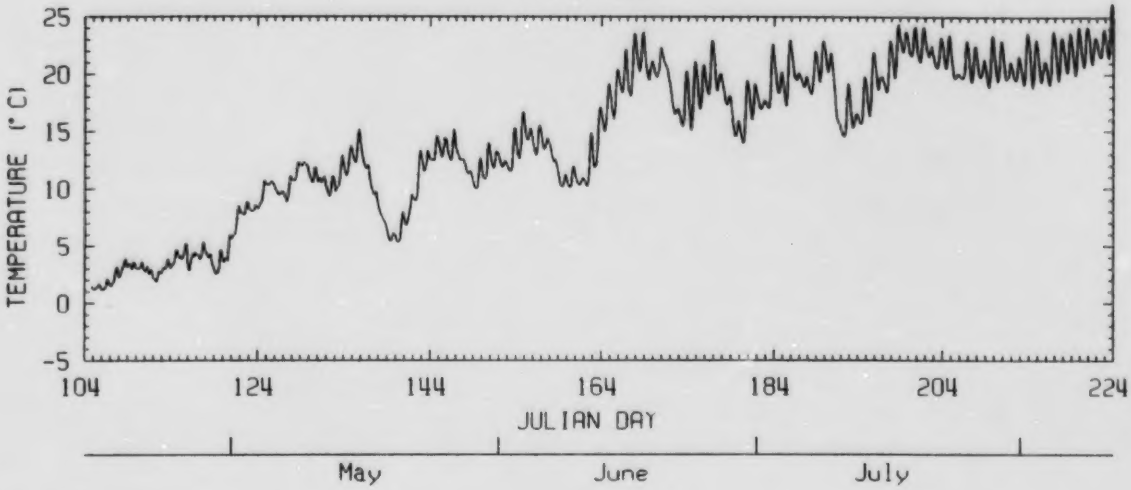

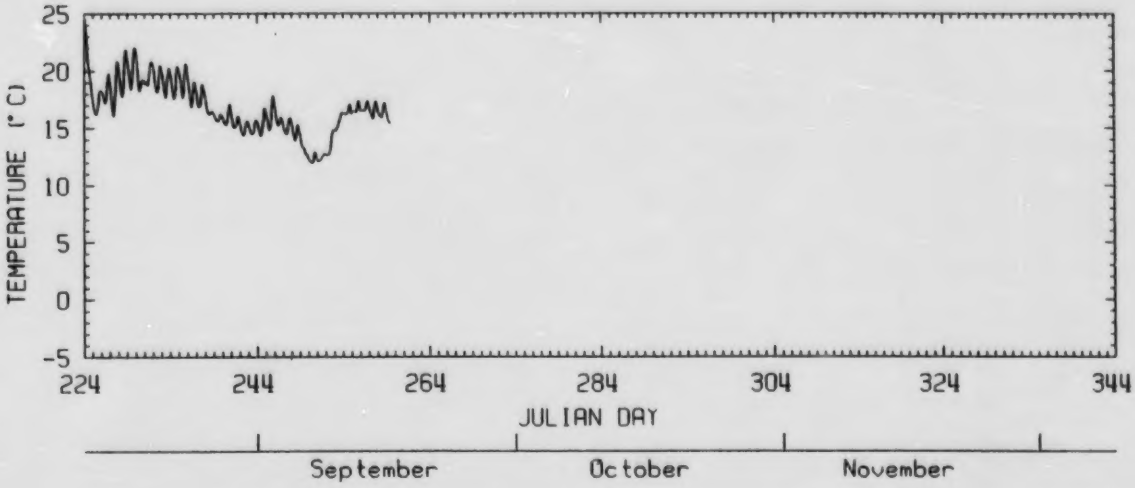

Start:14-APR-1998 End:16-SEP-1998 Inst. S/N:6646

THERMOGRAPH DATA SUMMARY

STATION NAME:	CAMPBELLTON RIVER
STATION NUMBER:	181
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005516
LATITUDE:	49.27° N
LONGITUDE:	54.92° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	16-MAR-1999 20:00 GMT
RECOVERY DATE/TIME:	14-SEP-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAR-1999	0.35	77	6.05	88	2.99	1.32	45.8	1.2	364
APR-1999	0.05	97	9.85	113	5.04	2.54	151.3	51.8	720
MAY-1999	3.60	121	20.10	130	12.89	3.58	399.7	275.7	744
JUN-1999	11.00	160	22.60	166	17.85	3.23	535.5	415.5	720
JUL-1999	13.35	188	22.60	182	19.86	2.28	615.7	491.7	744
AUG-1999	14.50	223	22.60	213	19.49	2.14	604.3	480.3	744
SEP-1999	14.60	250	22.15	245	17.77	1.77	248.6	192.6	329
Total Period	0.05	97	22.60	166	14.27	6.71	2601.0	1908.8	4365

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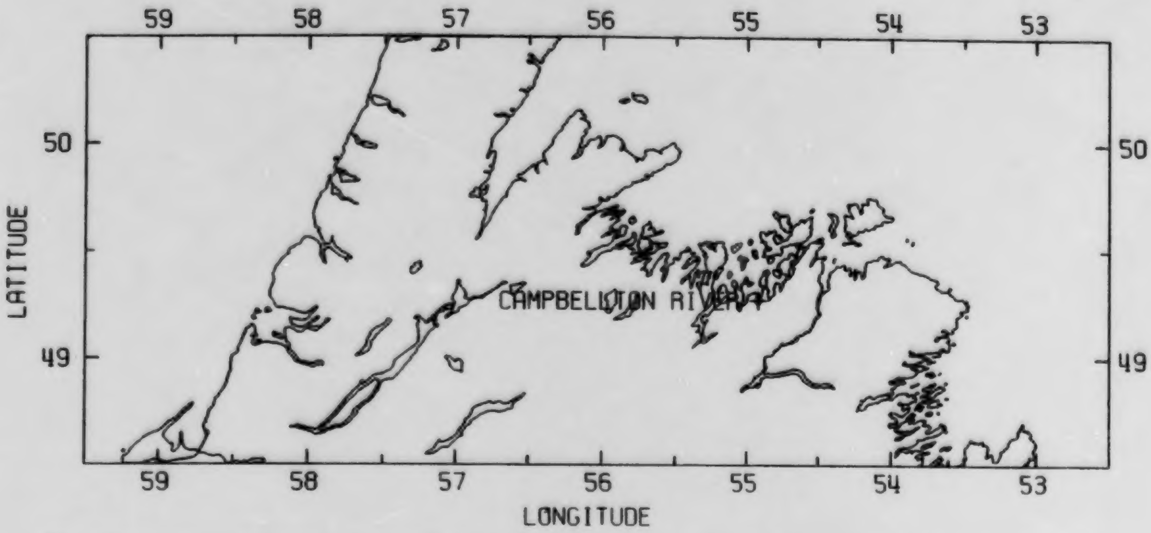
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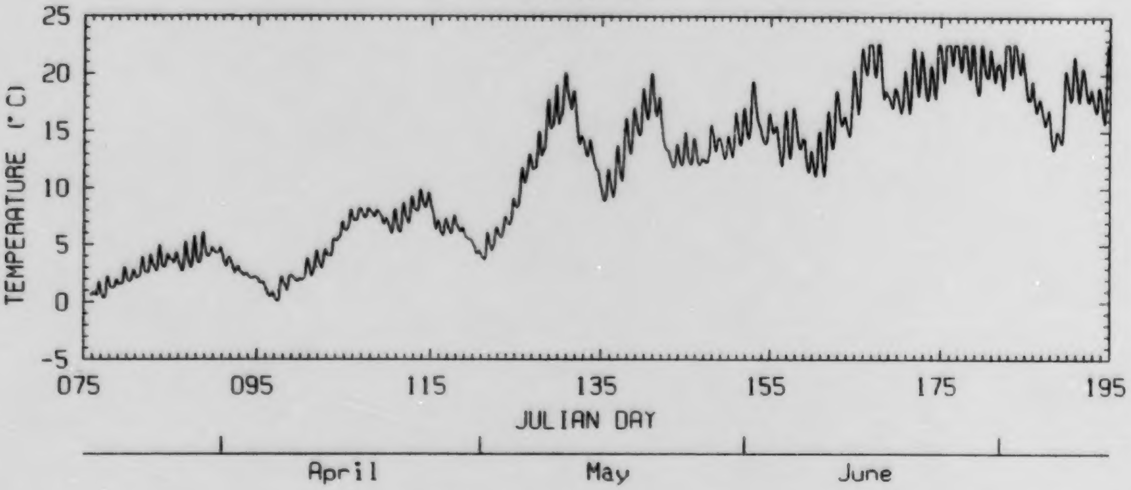
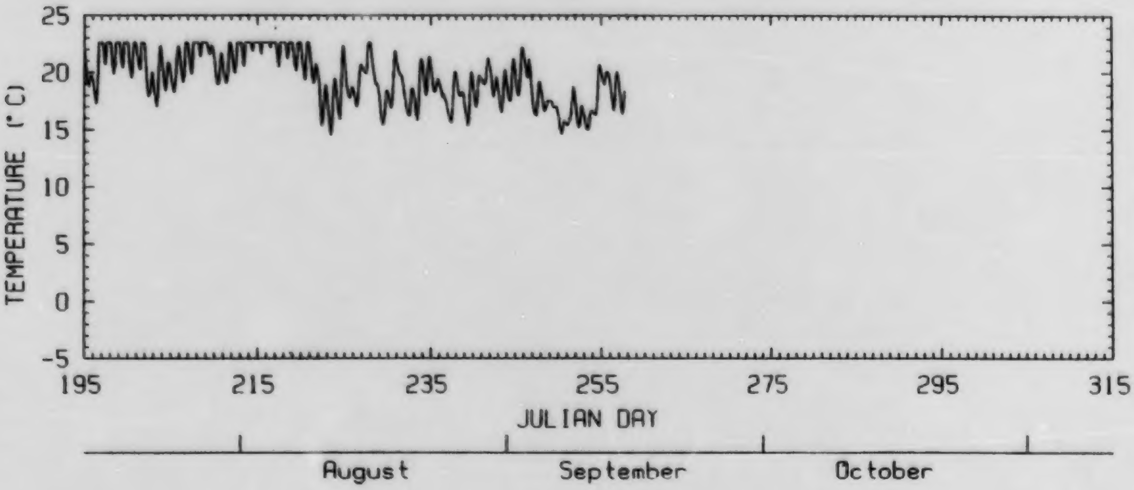




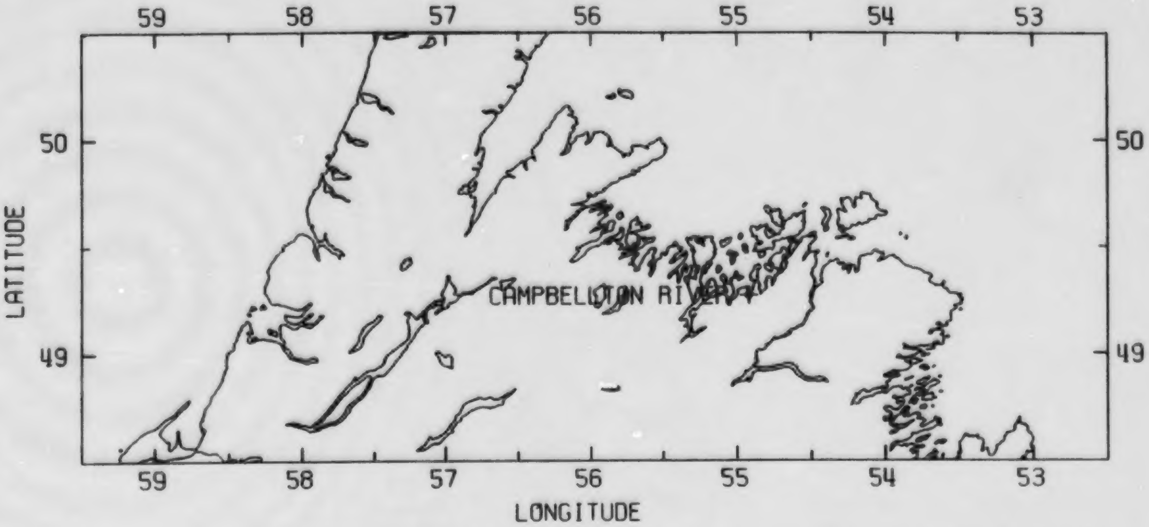
Start: 16-MAR-1999 End: 14-SEP-1999 Inst. S/N:5516

THERMOGRAPH DATA SUMMARY

STATION NAME:	CAMPBELLTON RIVER
STATION NUMBER:	181
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006248
LATITUDE:	49.27° N
LONGITUDE:	54.92° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	16-MAR-1999 20:00 GMT
RECOVERY DATE/TIME:	14-SEP-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAR-1999	0.20	77	6.10	88	2.88	1.34	44.0	0.8	364
APR-1999	0.00	97	9.90	113	4.98	2.56	149.4	51.0	720
MAY-1999	3.50	121	20.20	130	12.90	3.61	399.9	275.9	744
JUN-1999	10.90	160	25.10	175	17.95	3.35	538.6	418.6	720
JUL-1999	13.30	188	25.20	208	20.09	2.55	622.9	498.9	744
AUG-1999	14.50	223	26.80	215	19.77	2.53	612.9	488.9	744
SEP-1999	14.60	250	22.20	245	17.84	1.76	249.8	193.8	329
Total Period	0.00	97	26.80	215	14.36	6.87	2617.6	1927.9	4365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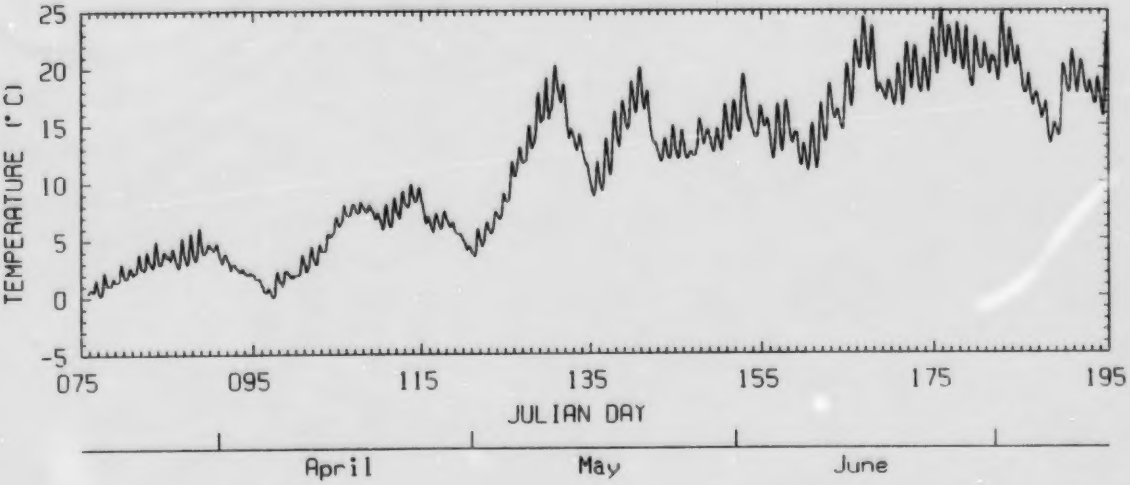
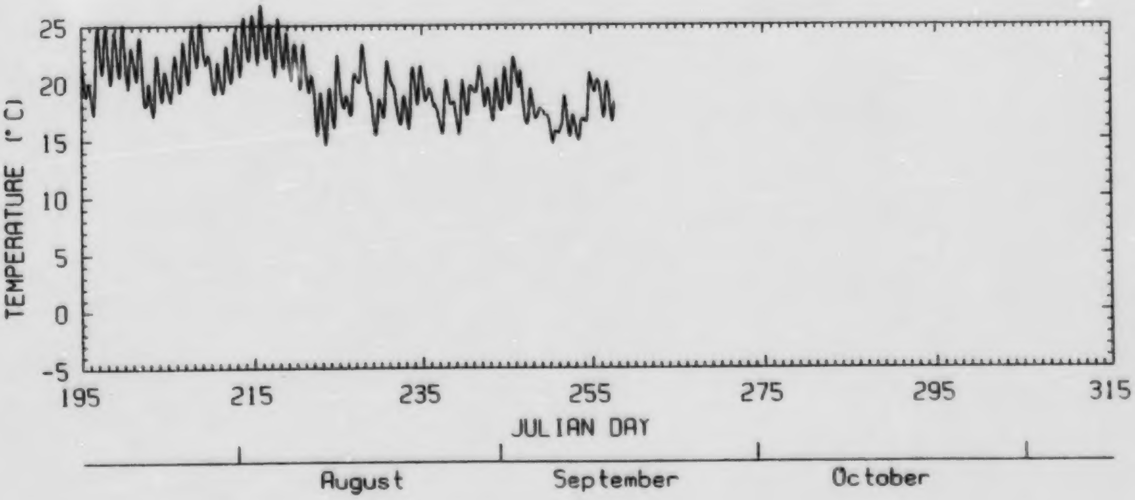




Start: 16-MAR-1999 End: 14-SEP-1999 Inst. S/N:6248

THERMOGRAPH DATA SUMMARY

STATION NAME: CAMPBELLTON RIVER

STATION NUMBER: 181

INSTRUMENT TYPE: Seamon Mini (Hugrun)

INSTRUMENT S/N: 00C148

LATITUDE: 49.27° N

LONGITUDE: 54.92° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: 1 m

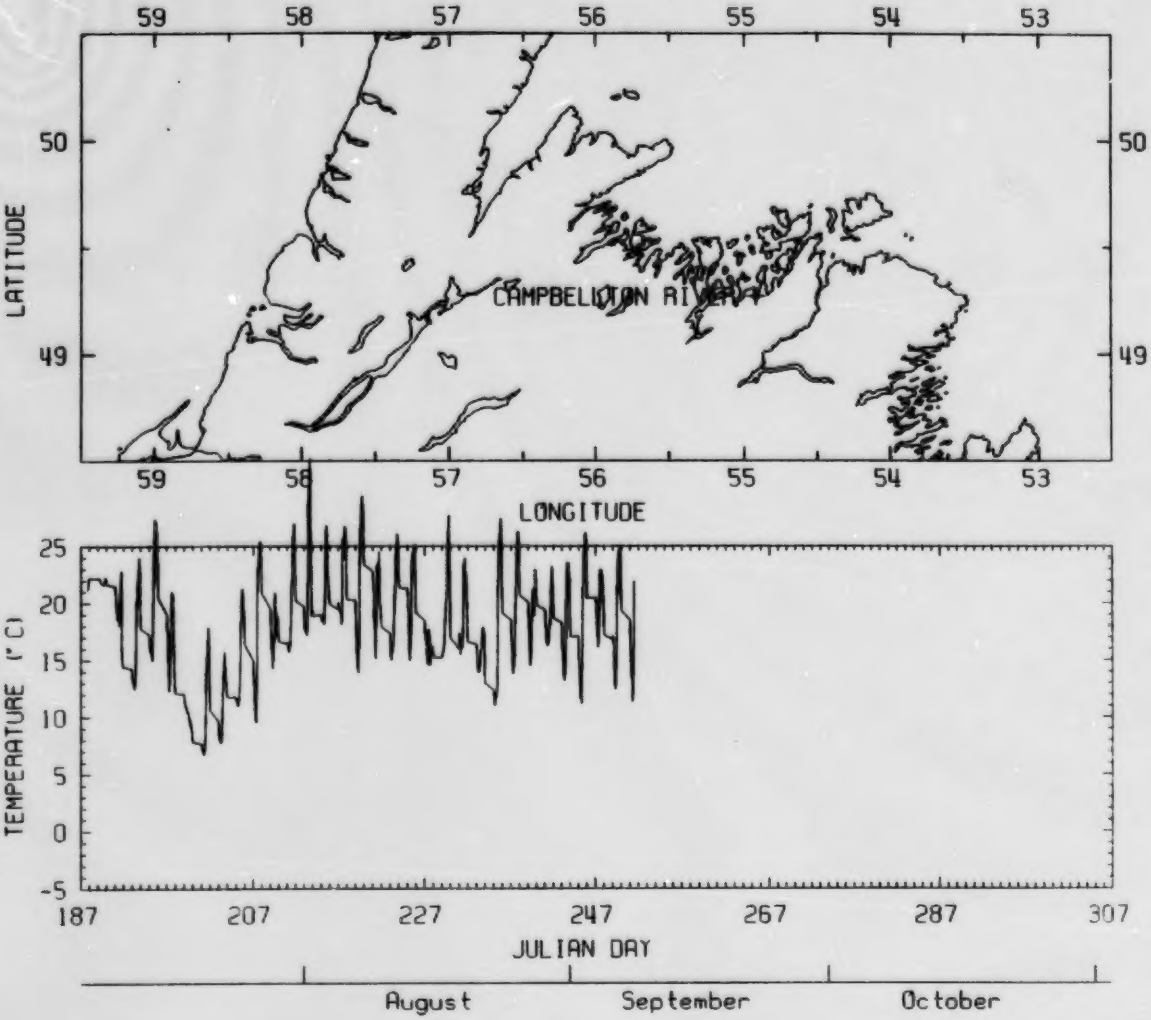
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 6-JUL-1998 19:00 GMT

RECOVERY DATE/TIME: 8-SEP-1998 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	6.67	201	27.35	195	16.67	5.18	433.6	329.6	587
AUG-1998	10.97	235	32.70	213	19.53	4.10	593.7	469.7	767
SEP-1998	11.12	245	26.17	245	18.61	4.43	146.6	114.6	169
Total Period	6.67	201	32.70	213	18.33	4.77	1173.9	913.9	1523



Start: 6-JUL-1998 End: 8-SEP-1998 Inst. S/N:C148

THERMOGRAPH DATA SUMMARY

STATION NAME: CAMPBELLTON RIVER(ESTUARY)

STATION NUMBER: 195

INSTRUMENT TYPE: Minilog-T (Vemco)

INSTRUMENT S/N: 006444

LATITUDE: 49.29° N

LONGITUDE: 54.92° W

INSTRUMENT DEPTH: 8 m

WATER DEPTH: 8 m

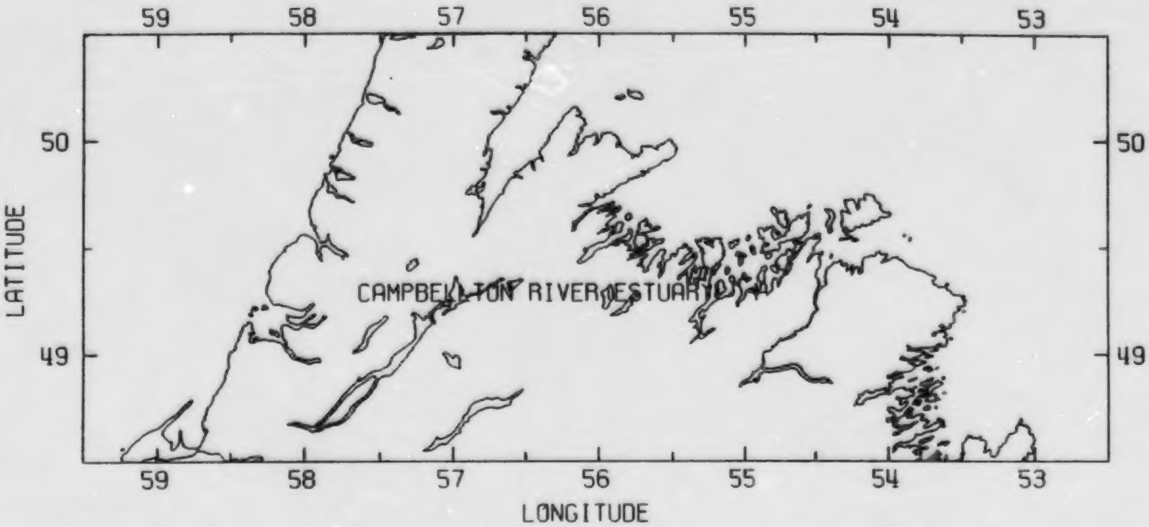
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 3-MAY-1999 20:00 GMT

RECOVERY DATE/TIME: 15-SEP-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	-0.10	131	9.00	151	4.04	2.54	116.5	27.3	676
JUN-1999	1.90	158	16.30	178	7.99	2.22	239.7	119.7	720
JUL-1999	5.20	184	18.00	212	12.97	2.68	402.0	278.0	744
AUG-1999	6.10	222	19.50	216	13.03	2.45	403.9	279.9	744
SEP-1999	10.90	255	16.80	246	14.65	1.05	219.6	159.6	350
Total Period	-0.10	131	19.50	216	10.19	4.51	1381.7	864.5	3234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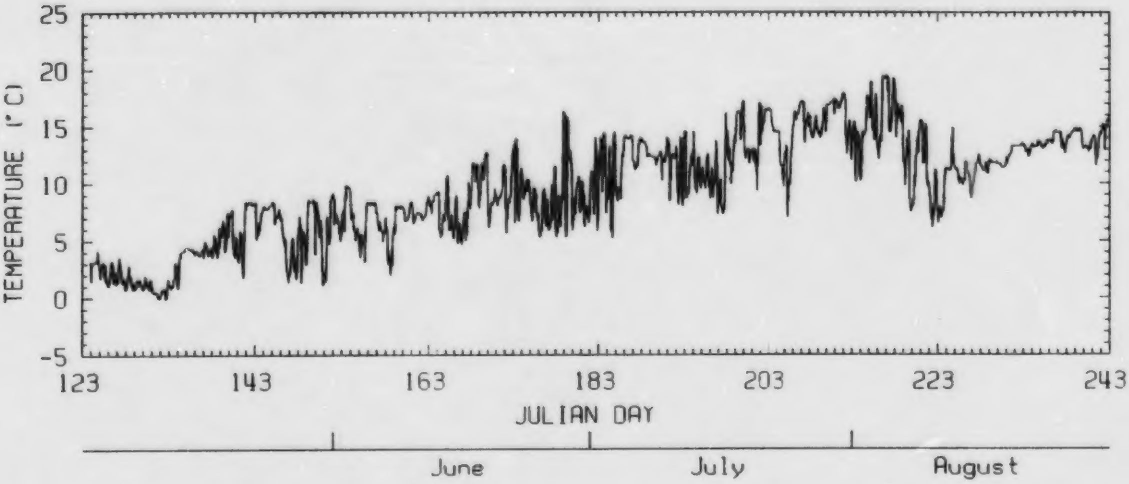
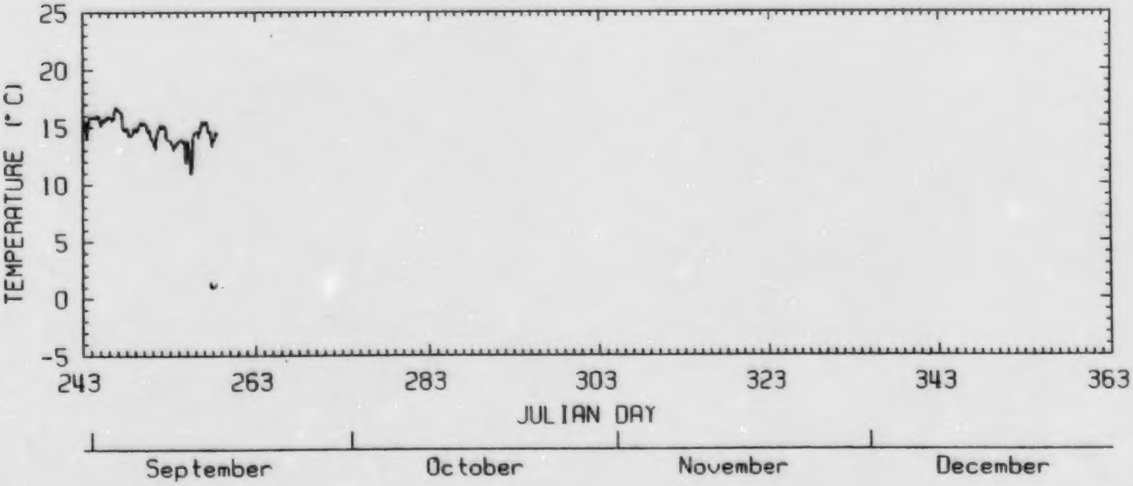
CAMPBELLTON RIVER ESTUARY





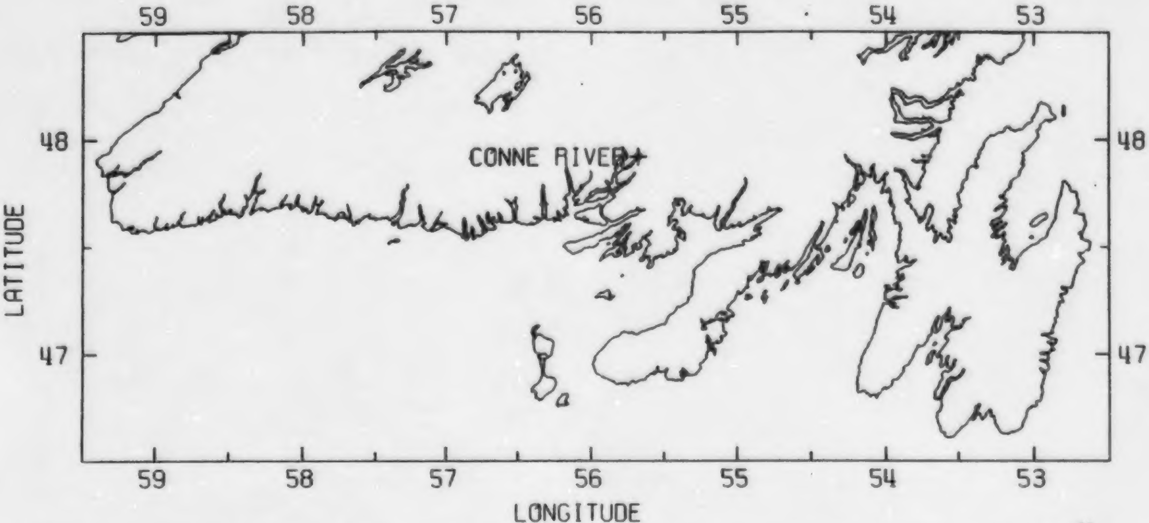
Start: 3-MAY-1999 End: 15-SEP-1999 Inst. S/N:6444

THERMOGRAPH DATA SUMMARY

STATION NAME:	CONNE RIVER
STATION NUMBER:	133
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005457
LATITUDE:	47.92° N
LONGITUDE:	55.68° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	16-APR-1998 11:00 GMT
RECOVERY DATE/TIME:	22-SEP-1998 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
APR-1998	2.05	119	9.50	120	4.15	1.33	61.7	5.1	349
MAY-1998	5.40	121	16.30	146	10.97	2.12	340.1	216.1	744
JUN-1998	9.85	152	24.15	177	15.82	3.37	474.7	354.7	720
JUL-1998	13.50	192	25.00	198	18.93	2.43	586.8	462.8	744
AUG-1998	14.60	227	27.00	222	19.88	2.70	616.4	492.4	744
SEP-1998	9.75	262	21.05	245	14.59	2.15	320.9	232.9	515
Total Period	2.05	119	27.00	222	15.04	5.30	2400.6	1763.9	3816


CONNE RIVER
LATITUDE
LONGITUDE
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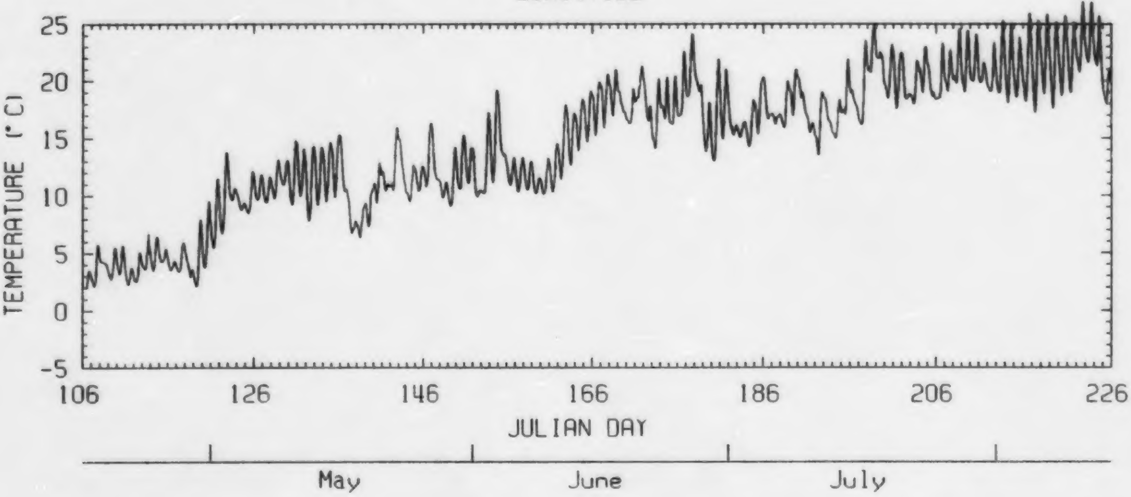
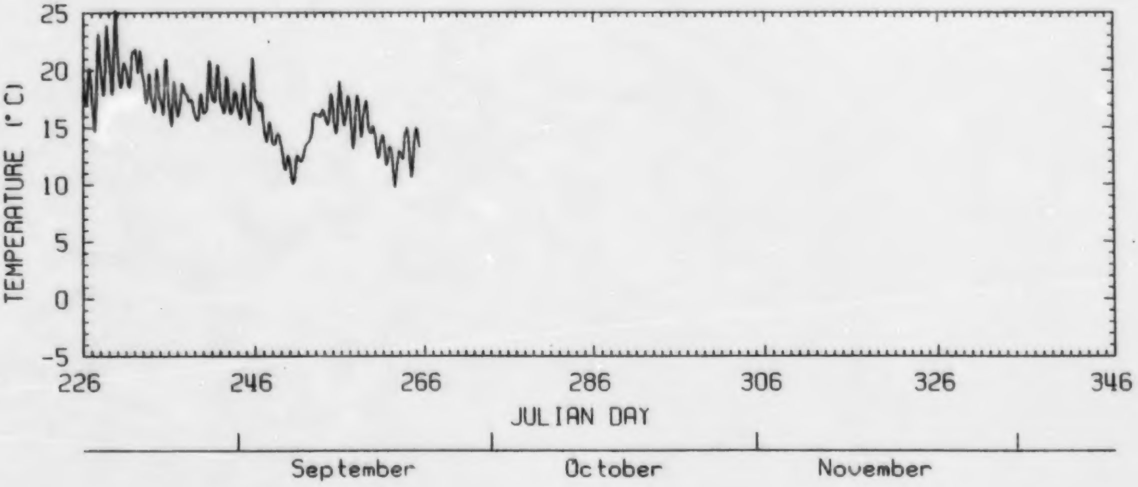




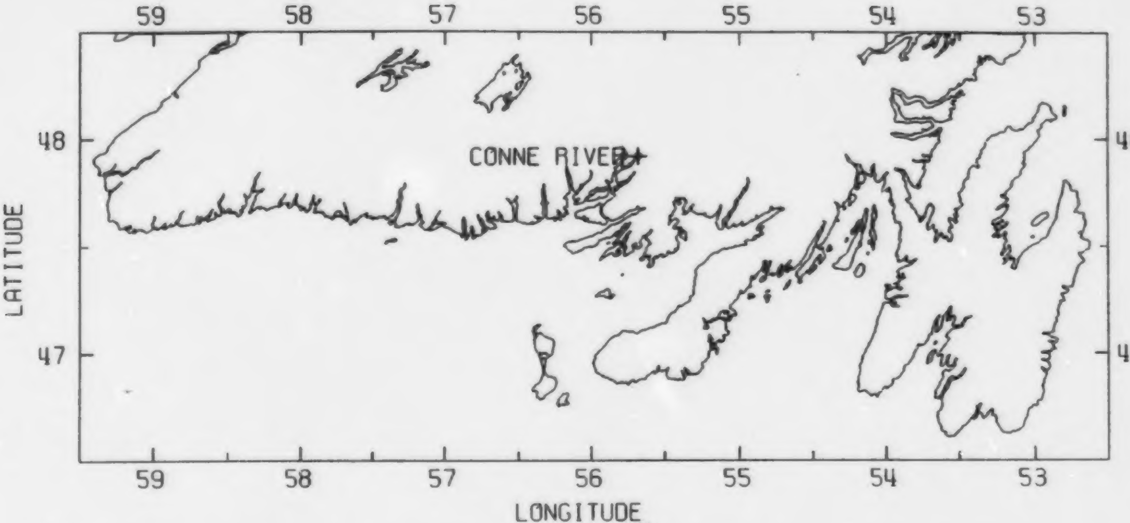
Start:16-APR-1998 End:22-SEP-1998 Inst. S/N:5457

THERMOGRAPH DATA SUMMARY

STATION NAME:	CONNE RIVER
STATION NUMBER:	133
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006249
LATITUDE:	47.92° N
LONGITUDE:	55.68° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	6-JUN-1998 13:00 GMT
RECOVERY DATE/TIME:	22-SEP-1998 10:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	10.10	159	24.00	177	16.51	3.13	410.6	310.6	587
JUL-1998	13.50	192	24.90	198	18.88	2.41	585.3	461.3	744
AUG-1998	14.60	227	26.90	222	19.82	2.68	614.4	490.4	744
SEP-1998	9.80	262	21.10	245	14.57	2.13	320.3	232.3	515
Total Period	9.80	262	26.90	222	17.76	3.29	1930.6	1494.6	2590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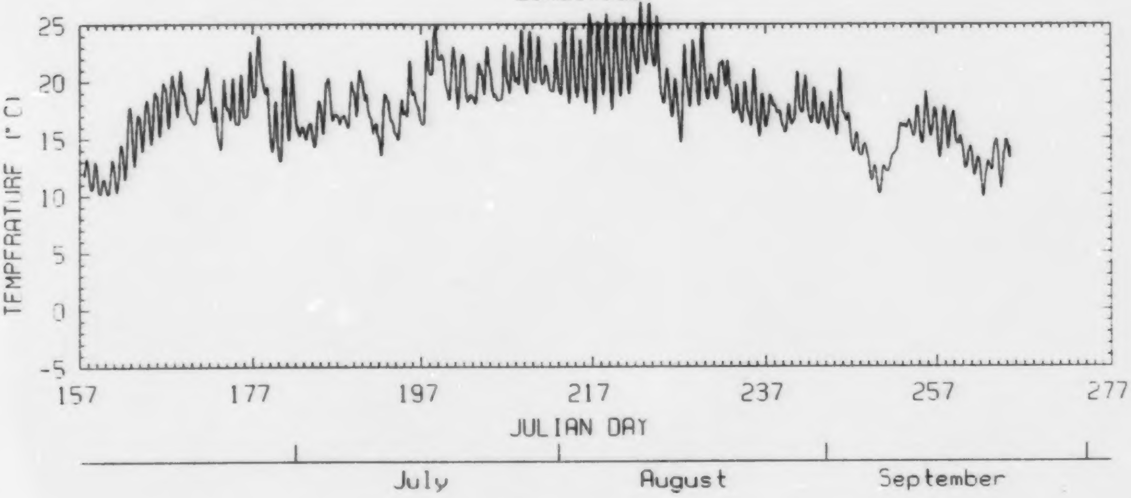
LATITUDE
CONNE RIVER
LONGITUDE



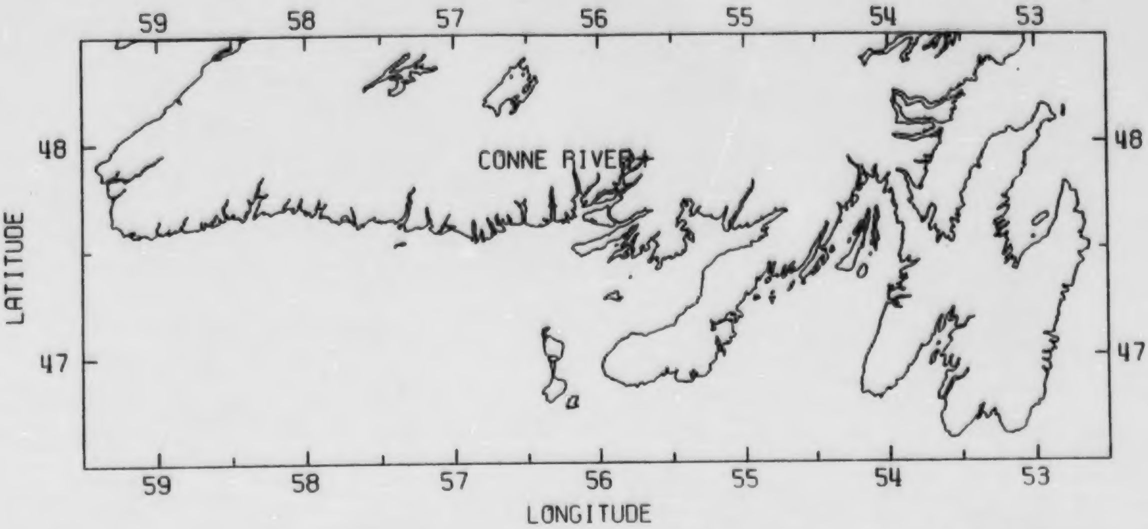
Start: 6-JUN-1998 End: 22-SEP-1998 Inst. S/N:6249

THERMOGRAPH DATA SUMMARY

STATION NAME:	CONNE RIVER
STATION NUMBER:	133
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	005457
LATITUDE:	47.92° N
LONGITUDE:	55.68° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	24-MAR-1999 21:00 GMT
RECOVERY DATE/TIME:	14-SEP-1999 21:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAR-1999	0.85	86	9.60	89	4.60	2.04	37.5	8.4	171
APR-1999	-0.05	96	11.40	118	5.19	2.65	155.7	51.5	720
MAY-1999	4.25	121	21.25	140	13.10	3.46	406.0	282.0	744
JUN-1999	11.45	161	24.70	165	17.68	2.94	530.3	410.3	720
JUL-1999	14.70	196	24.80	199	19.67	2.04	609.7	485.7	744
AUG-1999	13.90	233	26.60	215	19.06	2.13	591.0	467.0	744
SEP-1999	15.05	257	21.40	246	17.91	1.62	250.6	194.6	334
Total Period	-0.05	96	26.60	215	14.79	6.09	2580.9	1899.6	4177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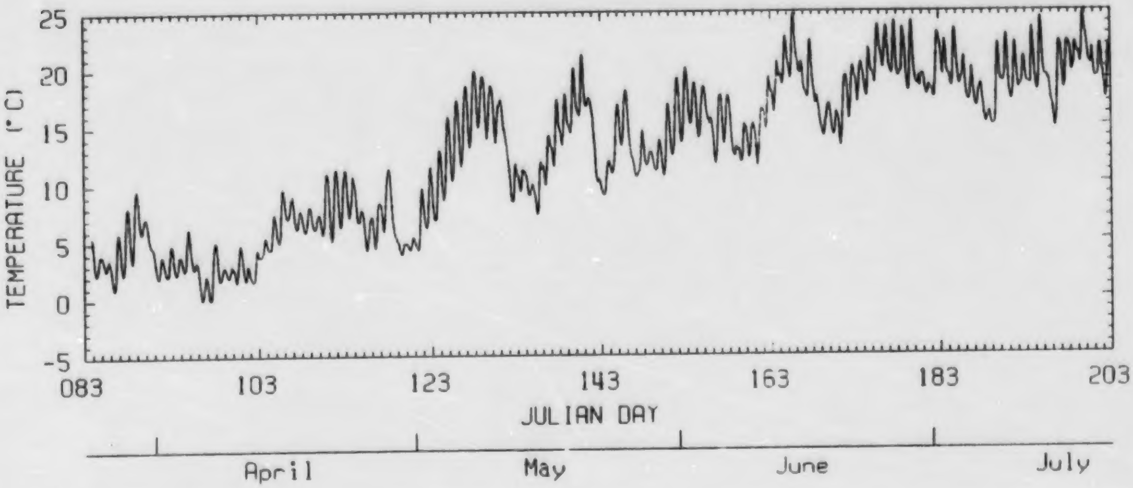
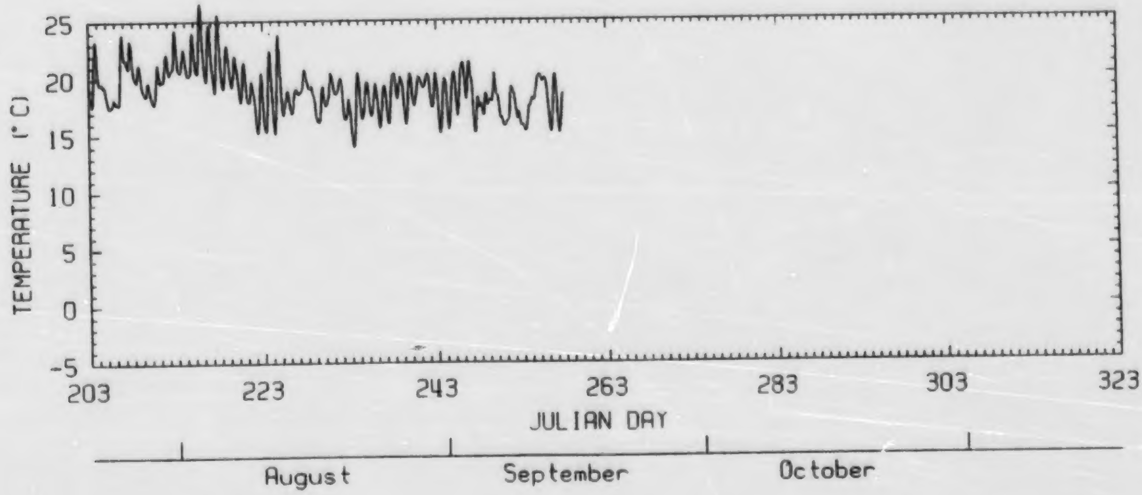
LATITUDE
CONNE RIVER
LONGITUDE





Start:24-MAR-1999 End:14-SEP-1999 Inst. S/N:5457

THERMOGRAPH DATA SUMMARY

STATION NAME: English River

STATION NUMBER: 245

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 007933

LATITUDE: 54.97° N

LONGITUDE: 59.75° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: Not Applicable

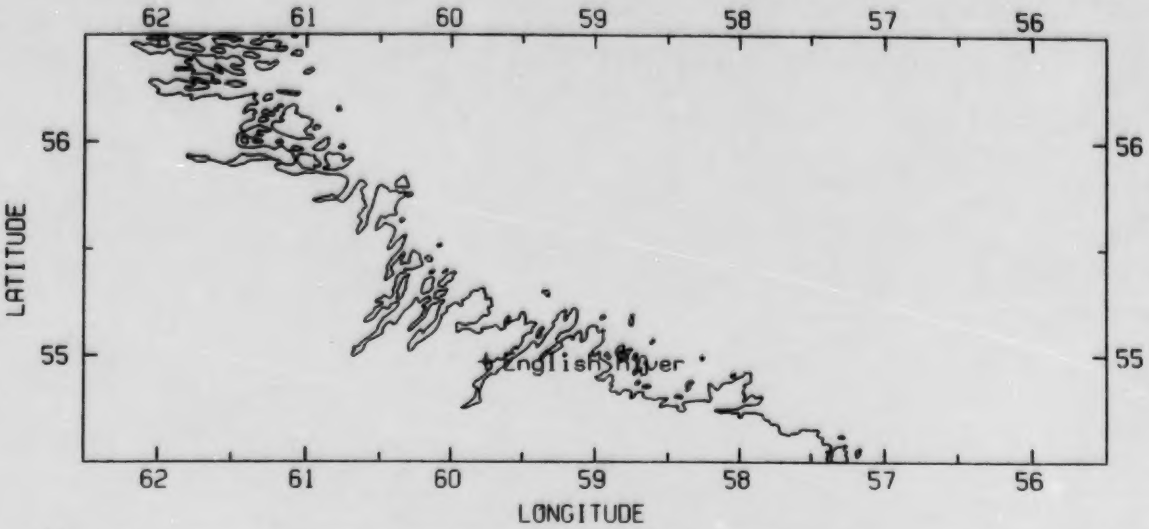
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 30-JUN-1999 14:00 GMT

RECOVERY DATE/TIME: 23-SEP-1999 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	7.65	181	9.50	181	8.25	0.52	8.3	4.3	10
JUL-1999	9.05	192	18.55	209	12.62	2.34	391.4	267.4	744
AUG-1999	12.75	224	18.45	213	15.52	1.39	481.1	357.1	744
SEP-1999	12.25	266	15.40	245	13.29	0.64	305.4	213.4	544
Total Period	7.65	181	18.55	209	13.84	2.15	1186.1	842.1	2042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LATITUDE
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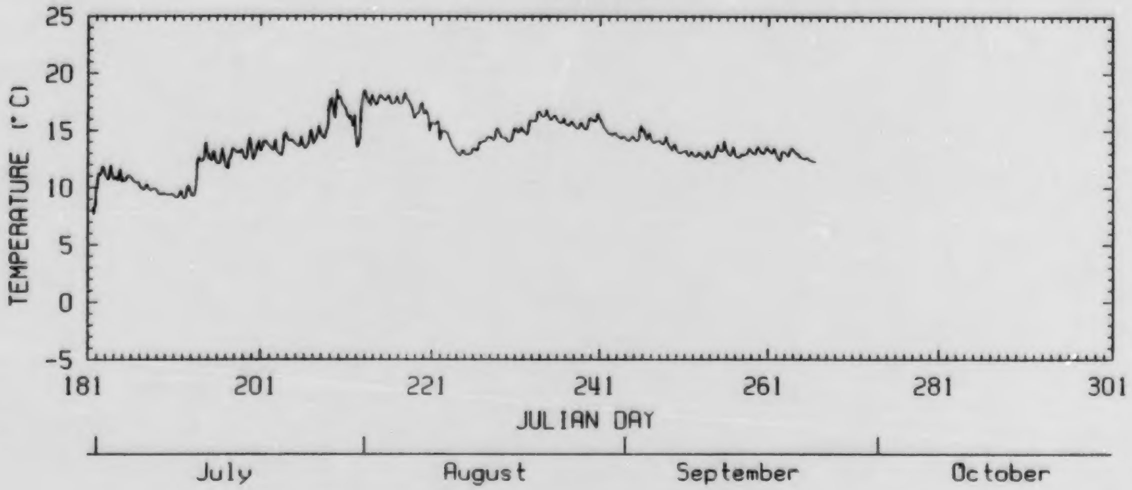
English River
LONGITUDE



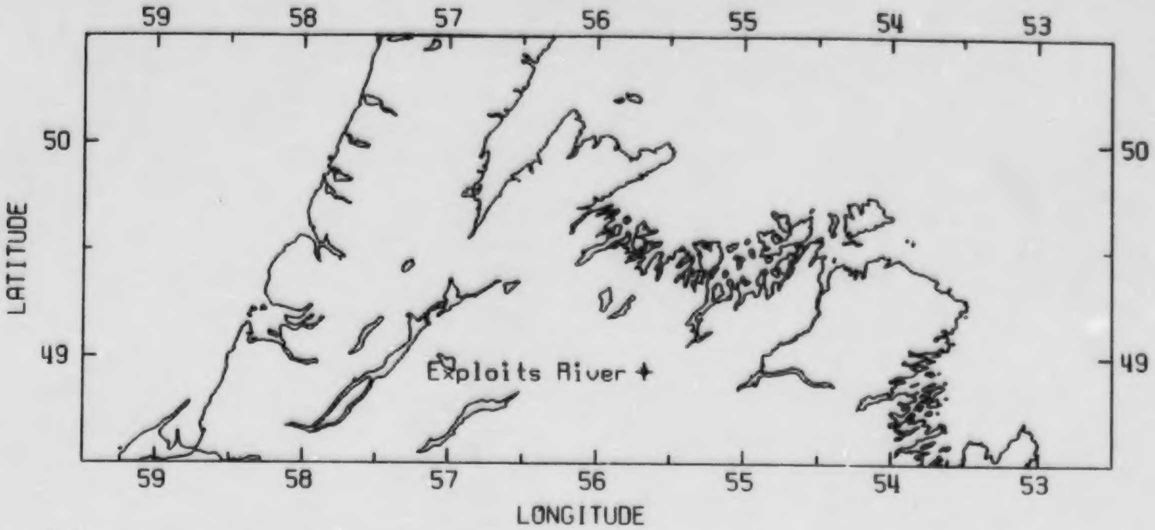
Start: 30-JUN-1999 End: 23-SEP-1999 Inst. S/N:7933

THERMOGRAPH DATA SUMMARY

STATION NAME:	Exploits River
STATION NUMBER:	228
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008959
LATITUDE:	48.93° N
LONGITUDE:	55.67° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	28-APR-1998 21:00 GMT
RECOVERY DATE/TIME:	9-MAY-1998 04:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
APR-1998	-1.00	119	5.75	120	3.02	1.67	8.5	0.4	51
MAY-1998	4.60	126	7.00	128	5.48	0.57	50.5	14.5	197
Total Period	-1.00	119	7.00	128	4.98	1.35	59.0	14.8	248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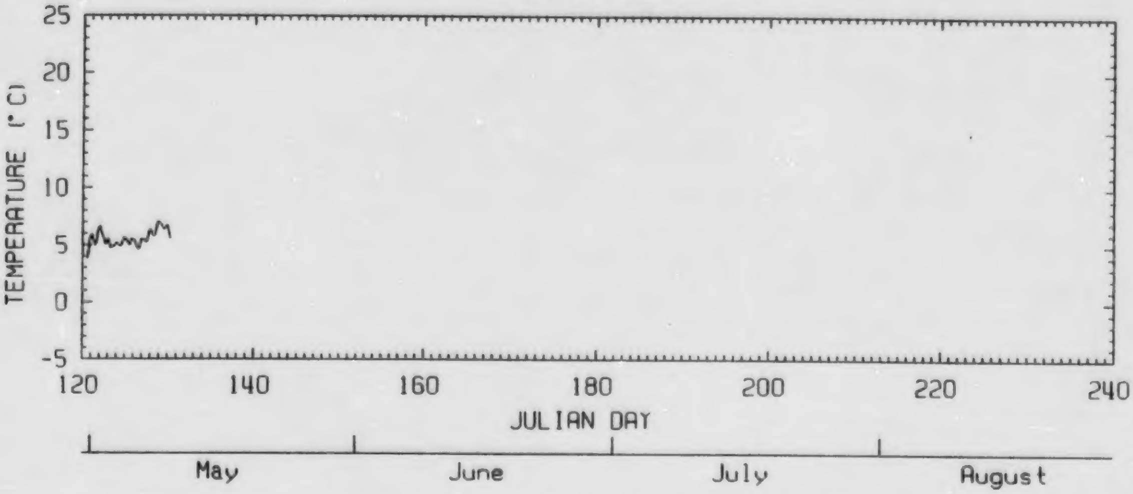
LATITUDE
Exploits River
LONGITUDE



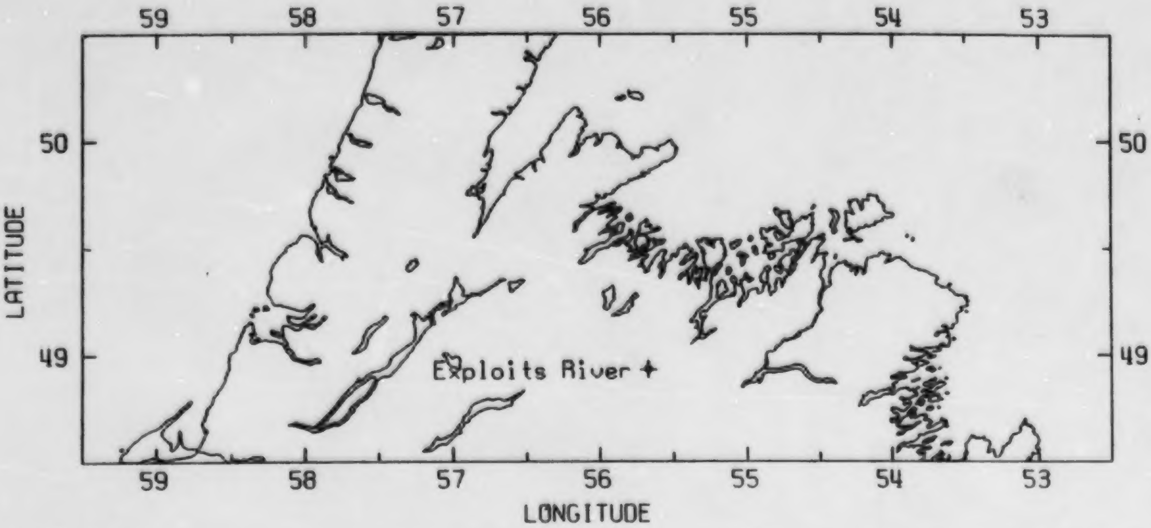
Start: 30-APR-1998 End: 2-JUL-1998 Inst. S/N:8959

THERMOGRAPH DATA SUMMARY

STATION NAME:	Exploits River
STATION NUMBER:	228
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006594
LATITUDE:	48.93° N
LONGITUDE:	55.67° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	28-APR-1998 21:00 GMT
RECOVERY DATE/TIME:	2-JUL-1998 22:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	**MIN (°C)**	**DAY**	**MAX (°C)**	**DAY**	**MEAN (°C)**	**STD. DEV.**	**DEGREE DAY 0**	**DEGREE DAY 4**	**NO. SAMP.**
APR-1998	-1.10	119	12.45	119	4.40	3.60	11.4	1.1	51
MAY-1998	4.65	126	13.55	143	7.93	2.12	245.9	121.9	744
JUN-1998	8.05	153	18.40	177	12.92	2.89	387.6	267.6	720
JUL-1998	12.35	182	15.25	183	13.40	0.81	26.8	18.8	47
Total Period	-1.10	119	18.40	177	10.28	3.70	671.7	409.4	1562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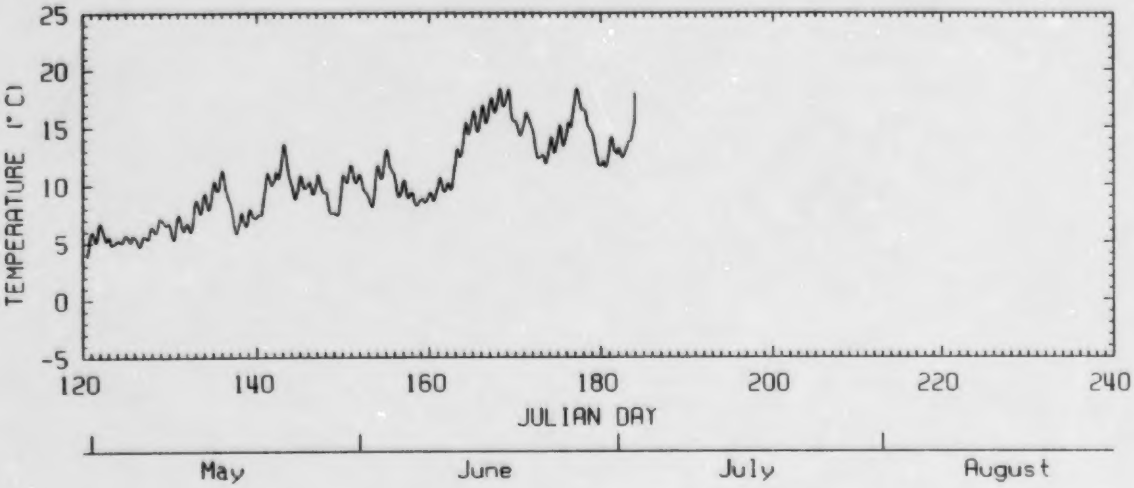
LATITUDE
Exploits River +
LONGITUDE



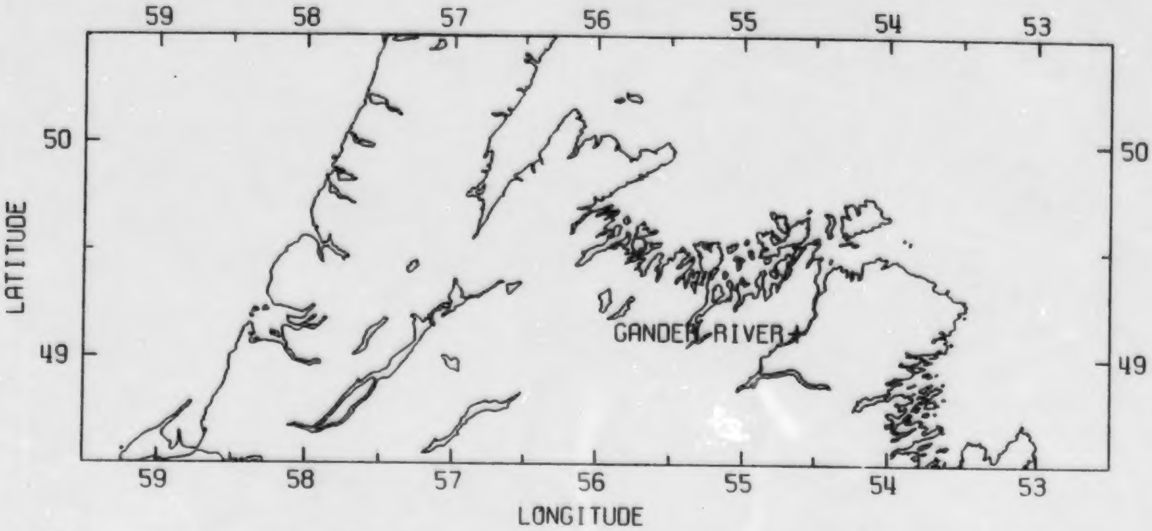
Start: 30-APR-1998 End: 2-JUL-1998 Inst. S/N:6594

THERMOGRAPH DATA SUMMARY

STATION NAME:	GANDER RIVER
STATION NUMBER:	128
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008AOB
LATITUDE:	49.12° N
LONGITUDE:	54.62° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	22-MAY-1998 12:00 GMT
RECOVERY DATE/TIME:	1-SEP-1998 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1998	7.40	142	11.15	146	9.54	0.72	94.9	54.9	228
JUN-1998	8.20	160	18.85	176	13.56	3.27	406.7	286.7	720
JUL-1998	15.60	182	22.90	201	19.20	1.74	595.3	471.3	744
AUG-1998	15.15	243	24.60	223	19.62	1.99	608.1	484.1	744
SEP-1998	14.80	244	15.50	244	15.08	0.19	15.1	11.1	14
Total Period	7.40	142	24.60	223	16.75	4.18	1720.0	1308.0	2450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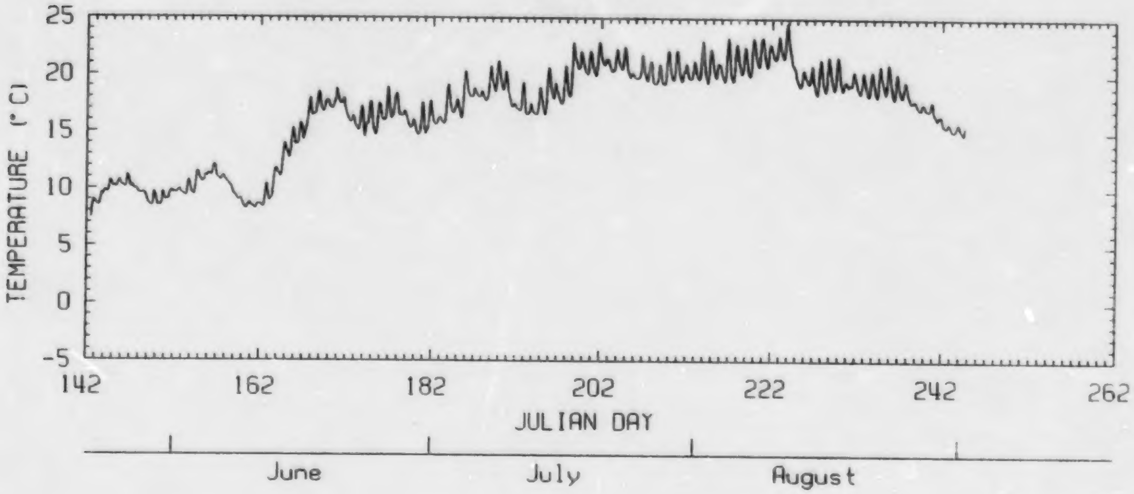
LATITUDE
GANDER RIVER
LONGITUDE



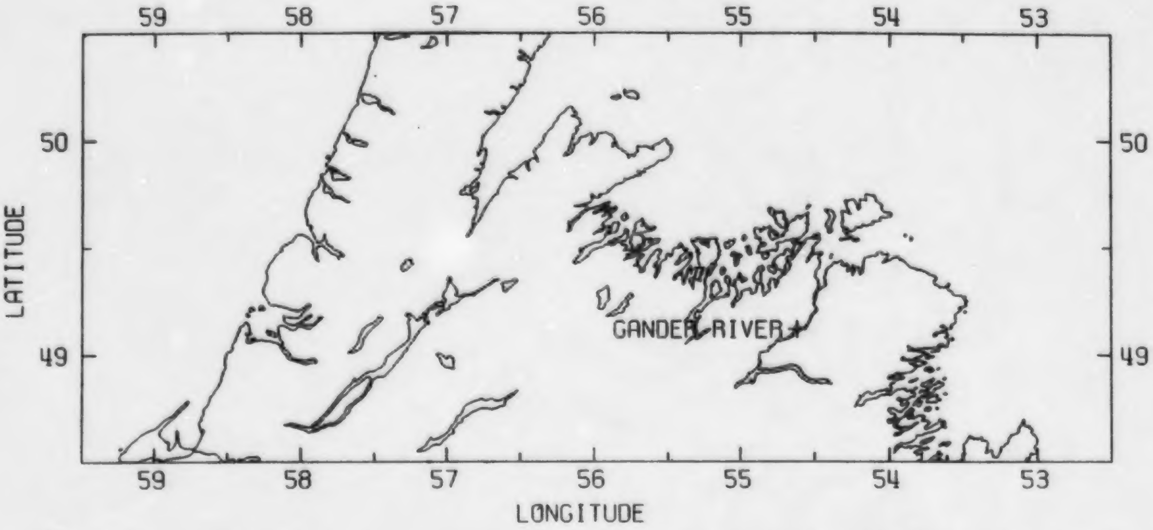
Start: 22-MAY-1998 End: 1-SEP-1998 Inst. S/N:8A0B

THERMOGRAPH DATA SUMMARY

STATION NAME:	GANDER RIVER
STATION NUMBER:	128
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	004347
LATITUDE:	49.12° N
LONGITUDE:	54.62° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	19-JUN-1998 19:00 GMT
RECOVERY DATE/TIME:	12-AUG-1998 23:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	4.70	170	17.10	171	10.62	2.86	124.3	76.3	269
JUL-1998	5.70	184	19.50	202	11.66	2.53	361.3	237.3	744
AUG-1998	7.00	213	20.60	224	13.65	2.53	163.9	115.9	288
Total Period	4.70	170	20.60	224	11.88	2.80	649.5	429.5	1301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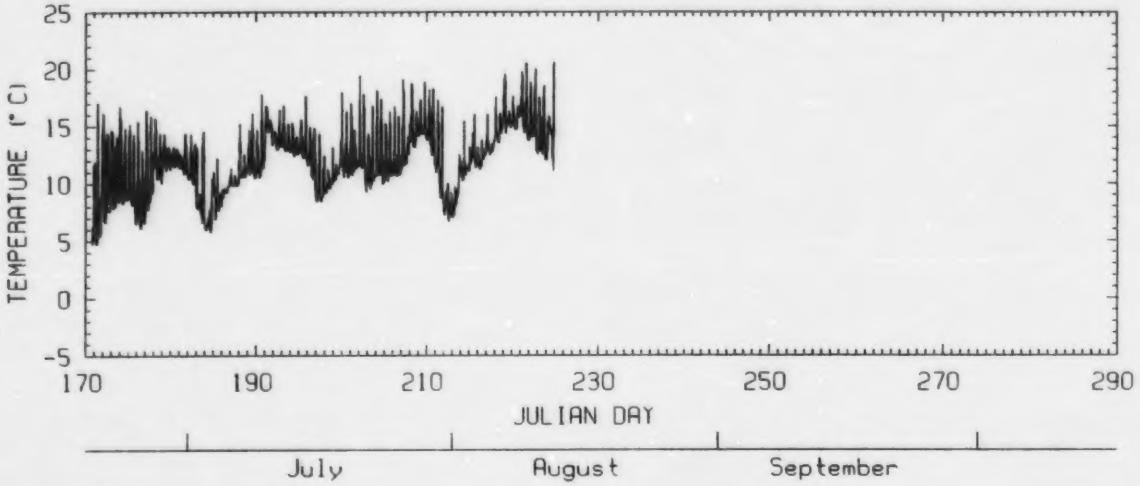
LATITUDE
GANDER RIVER
LONGITUDE



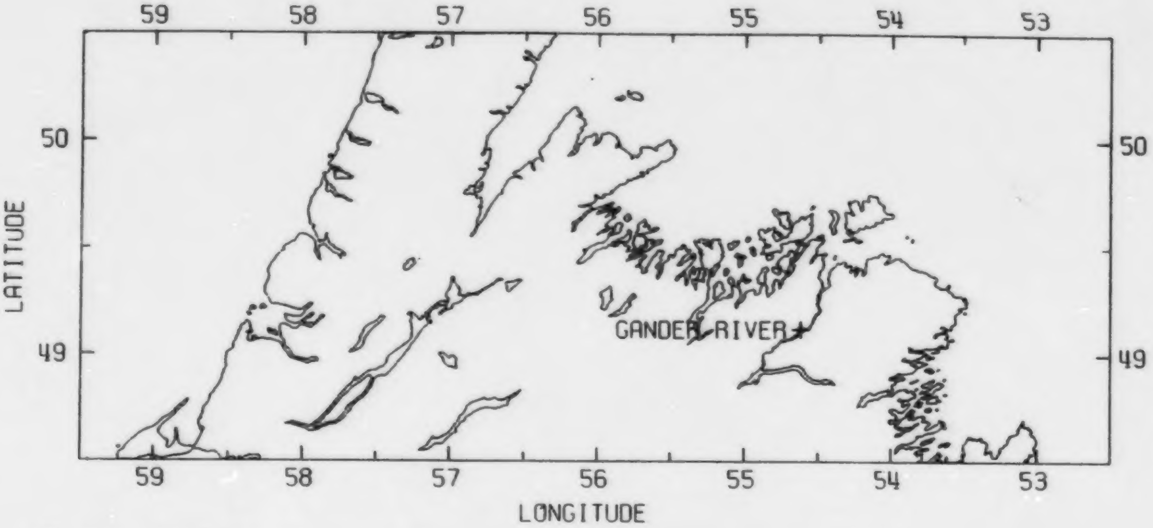
Start: 19-JUN-1998 End: 12-AUG-1998 Inst. S/N:4347

THERMOGRAPH DATA SUMMARY

STATION NAME:	GANDER RIVER
STATION NUMBER:	128
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006742
LATITUDE:	49.12° N
LONGITUDE:	54.62° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-JUN-1999 16:00 GMT
RECOVERY DATE/TIME:	6-SEP-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	9.60	161	21.75	178	15.41	3.47	429.4	317.4	656
JUL-1999	16.15	194	22.85	208	19.35	1.58	599.9	475.9	744
AUG-1999	16.40	239	24.55	215	19.38	1.79	600.8	476.8	744
SEP-1999	16.90	249	20.20	245	18.30	0.82	109.5	85.5	137
Total Period	9.60	161	24.55	215	18.16	2.91	1739.6	1355.6	2281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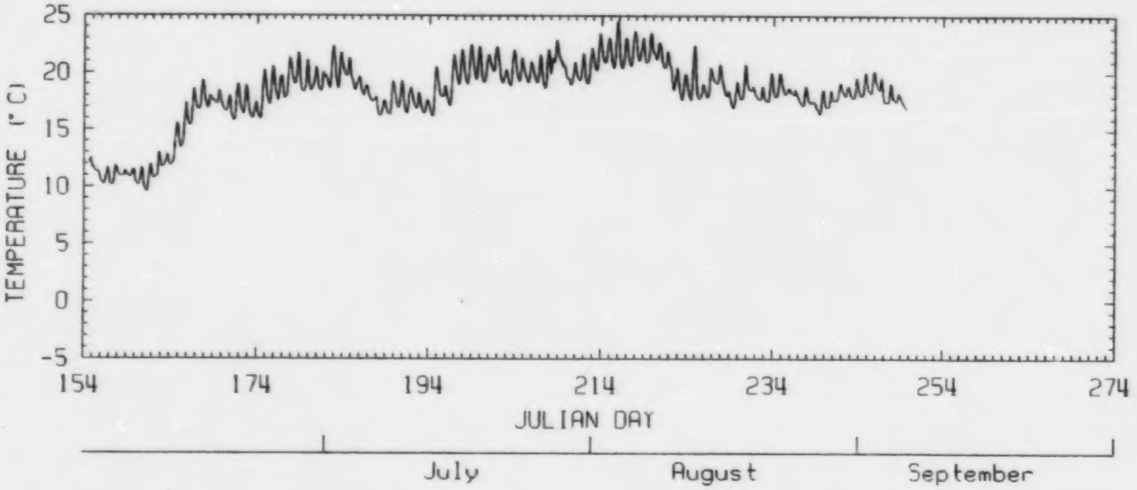
LATITUDE
GANDER RIVER
LONGITUDE



Start: 3-JUN-1999 End: 6-SEP-1999 Inst. S/N:6742

THERMOGRAPH DATA SUMMARY

STATION NAME: LOWER HIGHLAND RIVER

STATION NUMBER: 190

INSTRUMENT TYPE: Seamon Mini (Hugrun)

INSTRUMENT S/N: 00C147

LATITUDE: 48.19° N

LONGITUDE: 58.89° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: 1 m

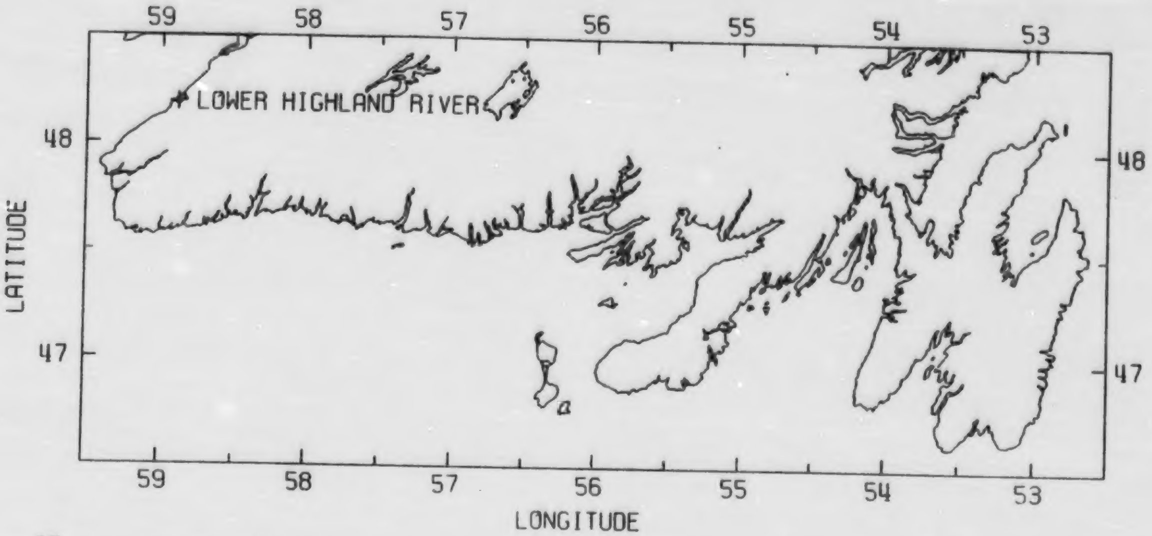
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 2-NOV-1997 17:00 GMT

RECOVERY DATE/TIME: 27-APR-1998 18:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	0.17	324	8.40	307	3.37	2.73	99.3	28.4	679
DEC-1997	-0.02	359	2.07	342	0.43	0.51	13.4	0.0	744
JAN-1998	-0.02	9	0.22	23	0.01	0.04	0.5	0.0	744
FEB-1998	-0.02	35	0.70	58	0.08	0.13	2.3	0.0	672
MAR-1998	-0.02	72	5.00	69	1.28	1.02	39.8	0.0	744
APR-1998	0.67	95	7.52	113	3.44	1.26	92.9	4.6	643
Total Period	-0.02	359	8.40	307	1.38	1.93	248.1	33.0	4226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LOWER HIGHLAND RIVER
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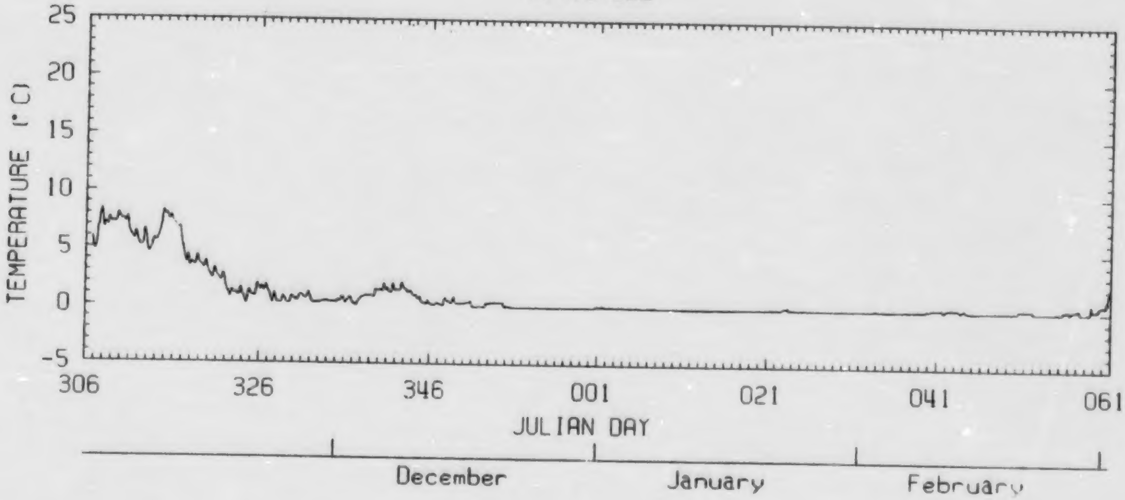
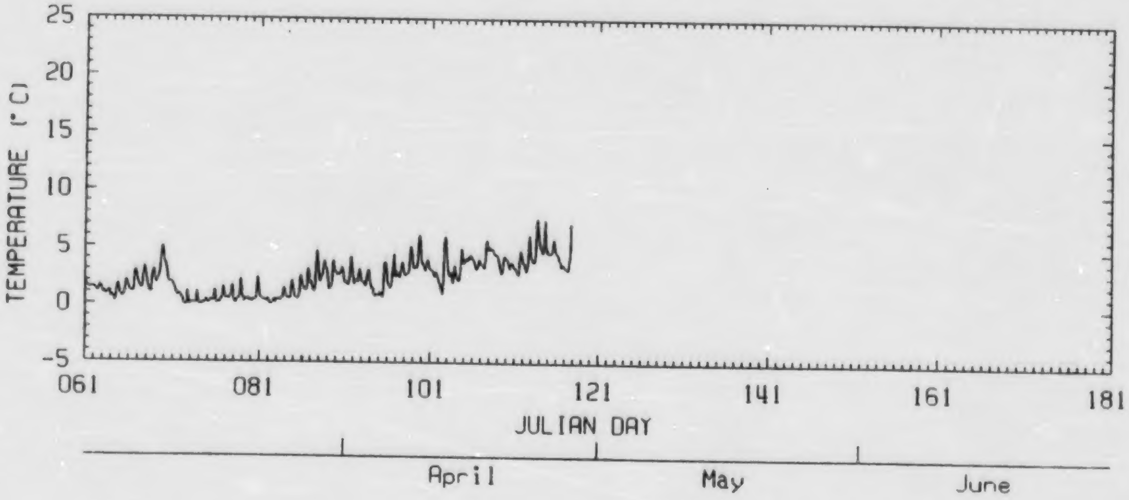
LATITUDE
LONGITUDE





Start: 2-NOV-1997 End:27-APR-1998 Inst. S/N:C147

THERMOGRAPH DATA SUMMARY

STATION NAME: LOWER HIGHLAND RIVER

STATION NUMBER: 190

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 005502

LATITUDE: 48.19° N

LONGITUDE: 58.89° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: 1 m

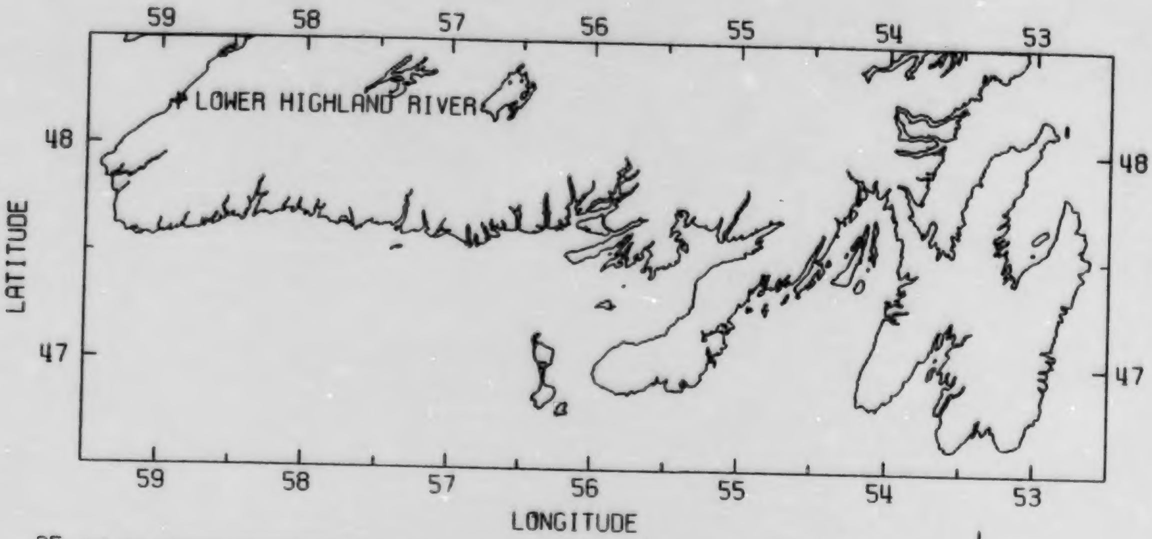
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 27-APR-1998 18:00 GMT

RECOVERY DATE/TIME: 7-NOV-1998 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
APR-1998	2.80	119	8.55	120	5.19	1.44	20.8	4.8	78
MAY-1998	5.70	124	16.40	141	10.43	2.02	323.3	199.3	744
JUN-1998	7.45	180	22.50	166	14.76	3.31	442.8	322.8	720
JUL-1998	13.65	191	25.55	201	18.65	2.72	578.2	454.2	744
AUG-1998	11.60	219	27.85	222	17.94	2.83	556.2	432.2	744
SEP-1998	10.50	262	20.90	245	13.47	1.92	404.2	284.2	720
OCT-1998	3.75	300	13.40	275	8.06	1.82	249.9	125.9	744
NOV-1998	5.30	311	8.60	305	7.12	0.76	49.4	21.4	161
Total Period	2.80	119	27.85	222	13.50	4.73	2624.9	1844.9	4655


LOWER HIGHLAND RIVER
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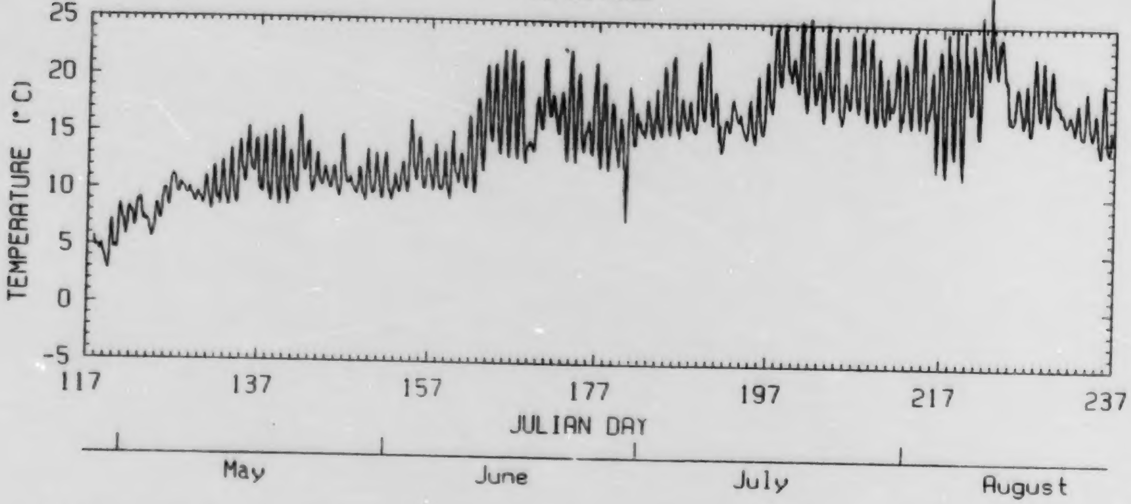
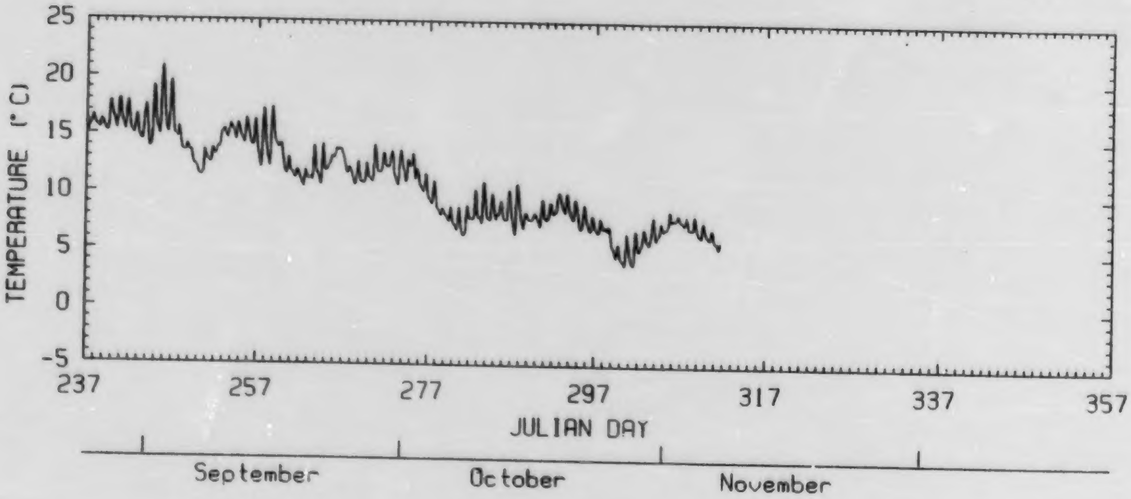




Start:27-APR-1998 End: 7-NOV-1998 Inst. S/N:5502

THERMOGRAPH DATA SUMMARY

STATION NAME: LOWER HIGHLAND RIVER

STATION NUMBER: 190

INSTRUMENT TYPE: Seamon Mini (Hugrun)

INSTRUMENT S/N: 00C148

LATITUDE: 48.19° N

LONGITUDE: 58.89° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: 1 m

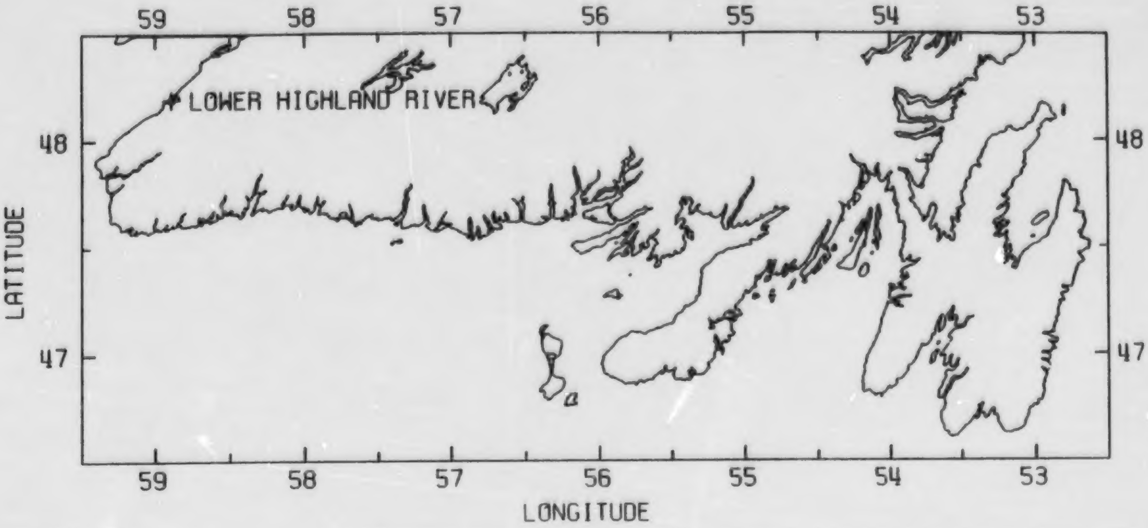
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 16-NOV-1998 17:00 GMT

RECOVERY DATE/TIME: 12-MAY-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1998	0.82	324	3.97	331	1.98	0.63	29.4	0.0	343
DEC-1998	0.00	355	3.82	335	0.38	0.56	11.7	0.0	744
JAN-1999	0.00	1	0.32	27	0.04	0.08	1.3	0.0	744
FEB-1999	0.00	32	1.00	44	0.11	0.14	3.1	0.0	672
MAR-1999	0.00	60	6.12	88	1.58	1.32	49.0	0.4	744
APR-1999	0.05	91	8.15	117	3.52	1.94	105.7	15.2	720
MAY-1999	4.57	121	13.25	129	9.04	2.08	108.0	60.0	281
Total Period	0.00	355	13.25	129	1.72	2.58	308.3	75.6	4248


LOWER HIGHLAND RIVER
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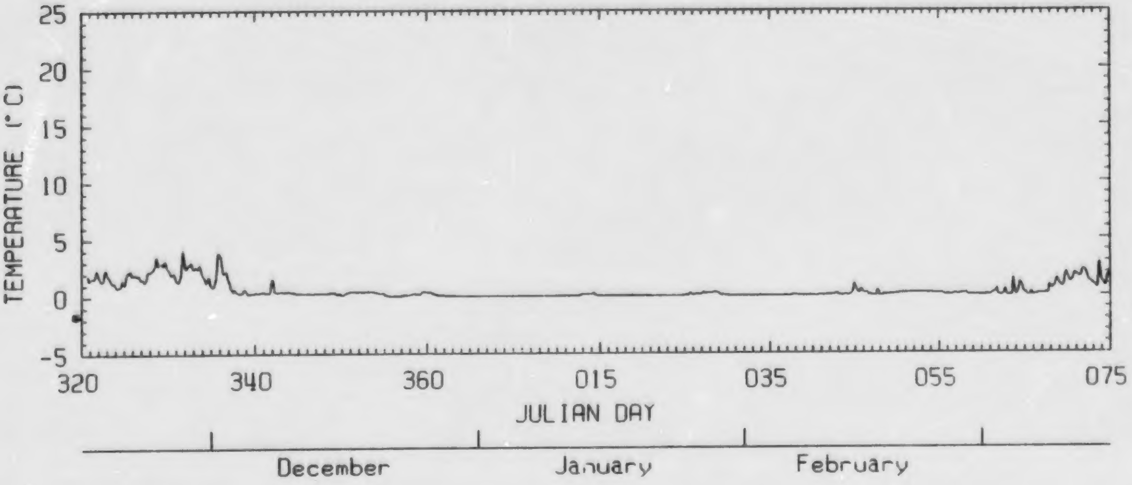
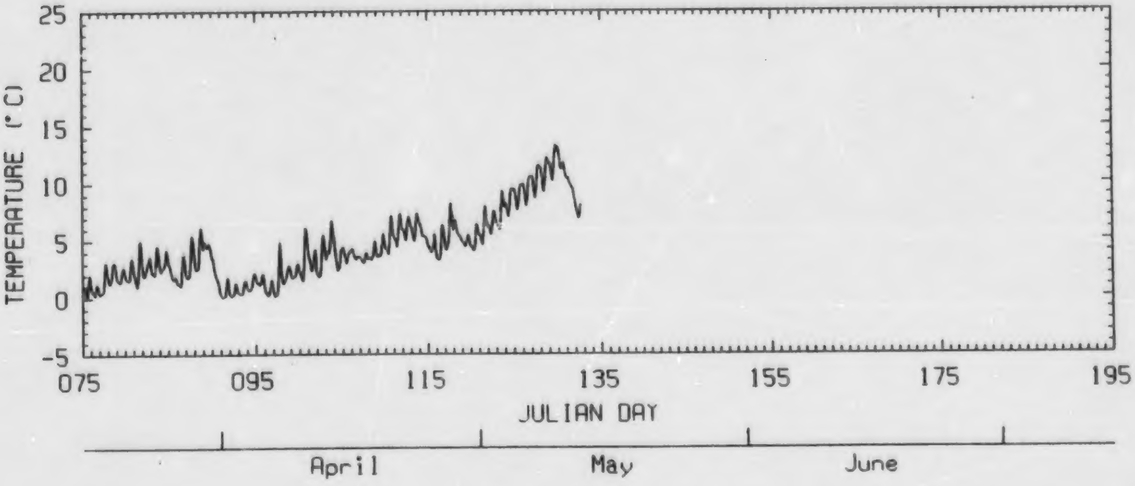




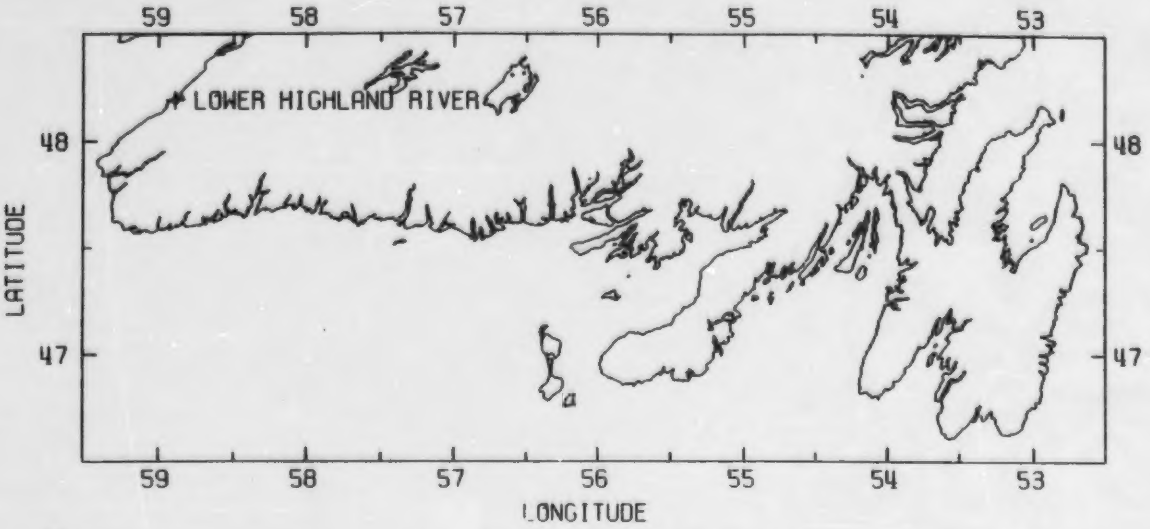
Start: 16-NOV-1998 End: 12-MAY-1999 Inst. S/N: C148

THERMOGRAPH DATA SUMMARY

STATION NAME: LOWER HIGHLAND RIVER
STATION NUMBER: 190
INSTRUMENT TYPE: Minilog-T (Vemco)
INSTRUMENT S/N: 006249
LATITUDE: 48.19° N
LONGITUDE: 58.89° W
INSTRUMENT DEPTH: 1 m
WATER DEPTH: 1 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 16-NOV-1998 17:00 GMT
RECOVERY DATE/TIME: 12-MAY-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1998	1.30	334	4.00	331	2.38	0.51	35.2	0.0	343
DEC-1998	0.00	347	3.80	335	0.55	0.56	17.0	0.0	744
JAN-1999	0.00	1	0.80	9	0.29	0.17	8.9	0.0	744
FEB-1999	0.00	35	1.40	44	0.27	0.18	7.6	0.0	672
MAR-1999	0.00	60	5.80	88	1.68	1.28	52.2	0.4	744
APR-1999	0.40	91	7.80	117	3.59	1.79	107.8	14.5	720
MAY-1999	4.60	121	12.40	129	8.77	1.93	104.9	56.9	281
Total Period	0.00	347	12.40	129	1.86	2.45	333.5	71.8	4248


LOWER HIGHLAND RIVER
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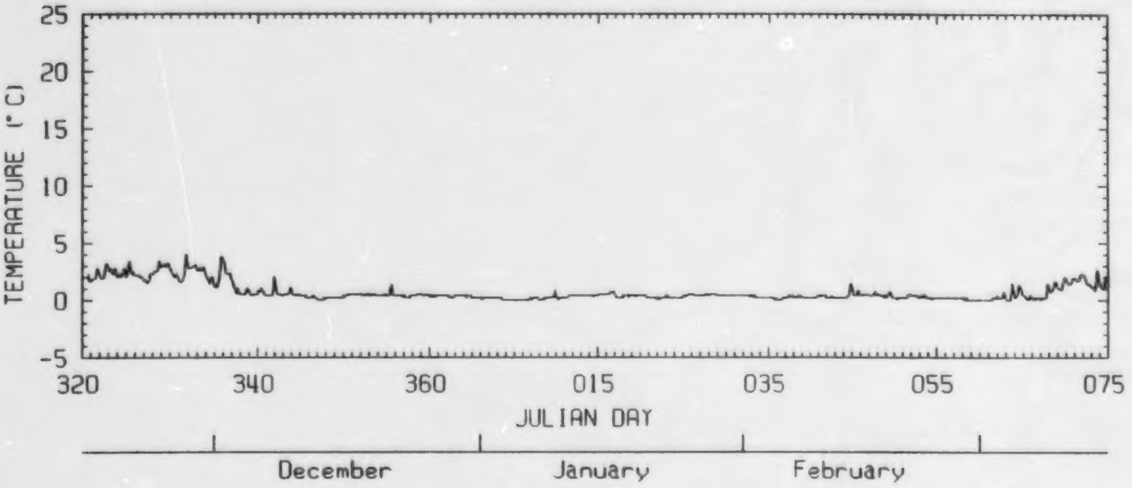
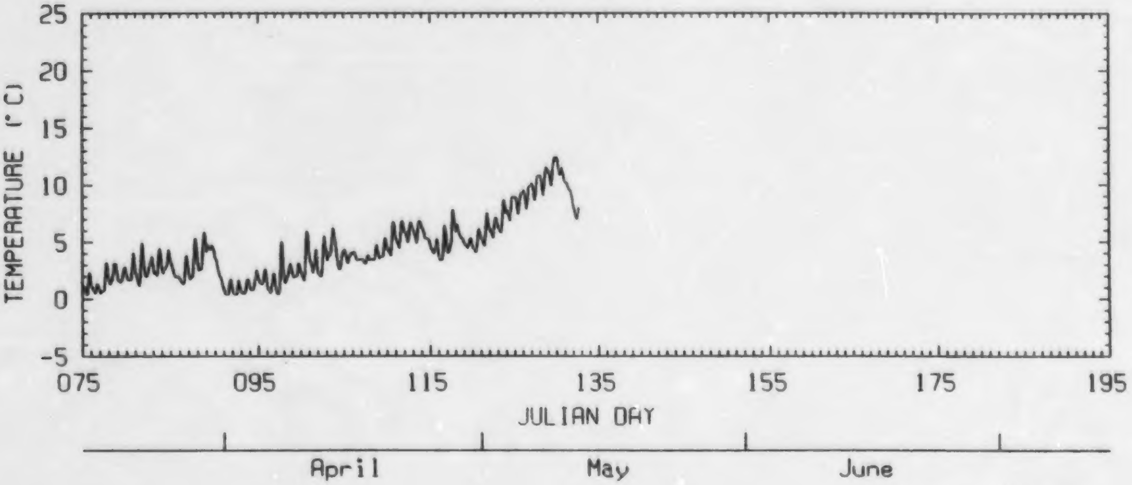




Start:16-NOV-1998 End:12-MAY-1999 Inst. S/N:6249

THERMOGRAPH DATA SUMMARY

STATION NAME: HIGHLANDS RIVER

STATION NUMBER: 196

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 008957

LATITUDE: 48.08° N

LONGITUDE: 58.77° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: 1 m

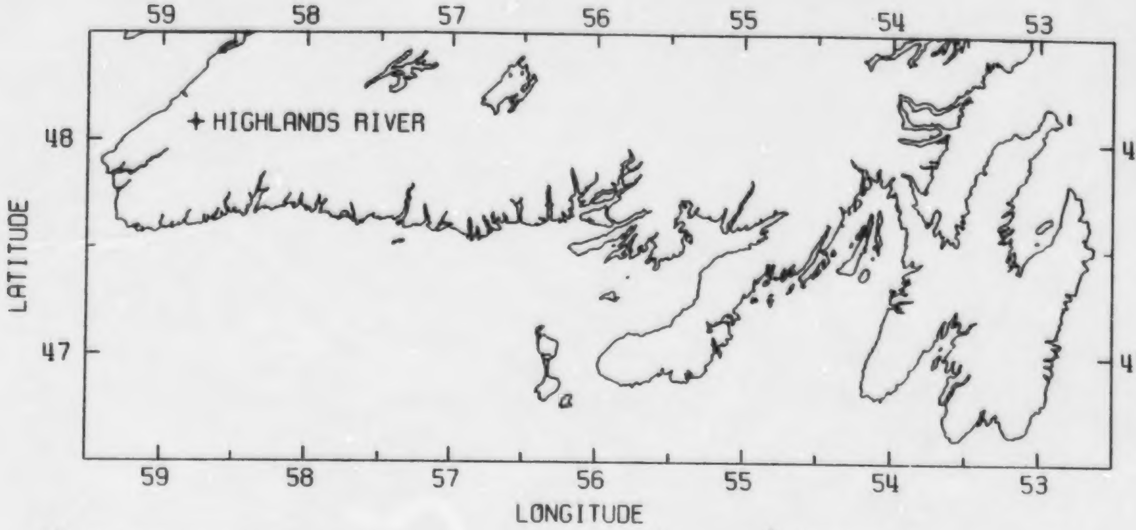
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 12-MAY-1999 17:00 GMT

RECOVERY DATE/TIME: 5-NOV-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	4.80	135	17.90	140	11.87	3.02	234.5	154.5	463
JUN-1999	10.05	160	23.25	180	16.69	2.94	500.8	380.8	720
JUL-1999	13.75	194	26.60	212	19.50	2.74	604.4	480.4	744
AUG-1999	13.95	224	25.65	214	18.54	2.27	574.6	450.6	744
SEP-1999	10.45	272	23.20	254	16.40	2.53	491.9	371.9	720
OCT-1999	3.15	303	14.90	274	7.94	2.79	246.3	122.3	744
NOV-1999	4.45	306	8.75	308	6.22	1.31	31.4	11.4	114
Total Period	3.15	303	26.60	212	15.12	5.05	2683.9	1972.0	4249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HIGHLANDS RIVER
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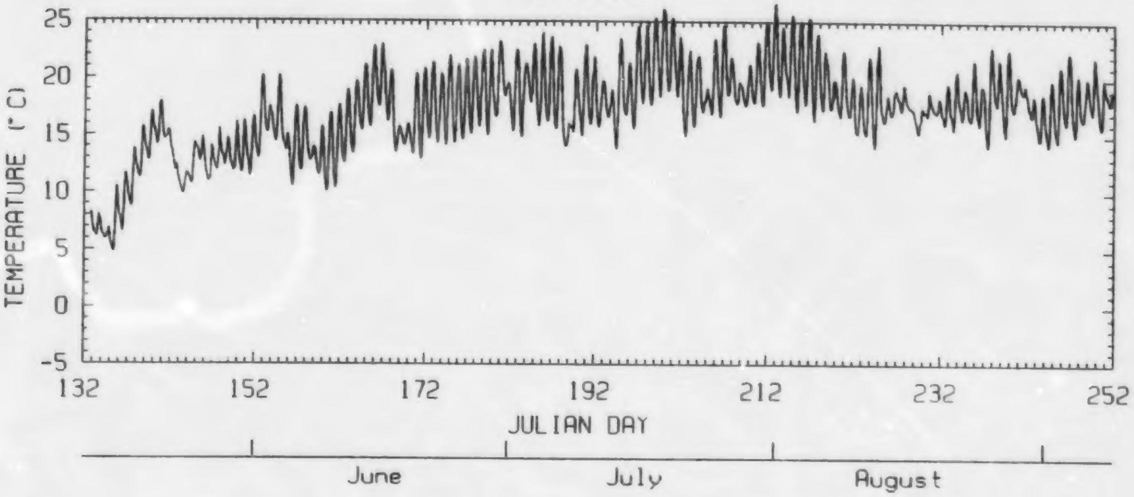
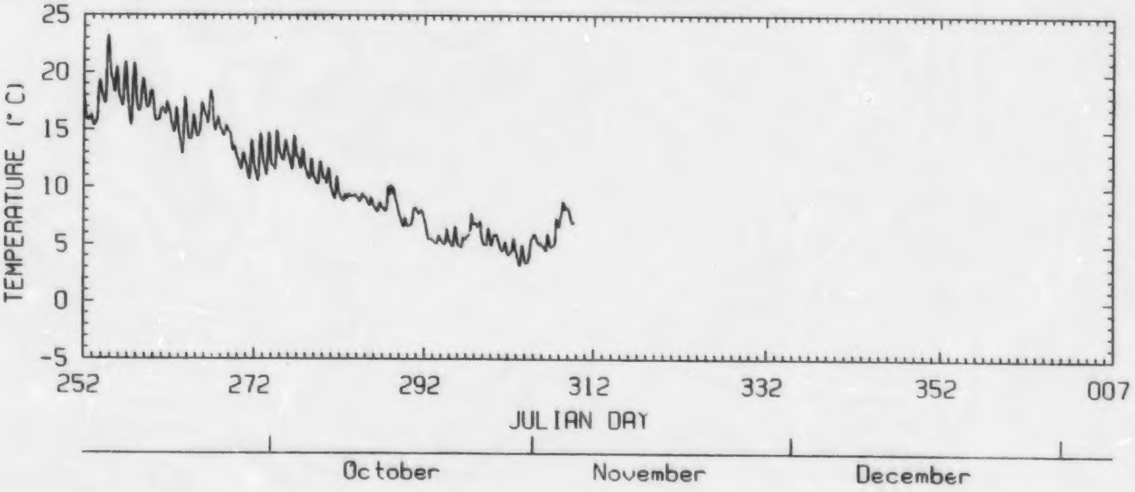
LONGITUDE





Start:12-MAY-1999 End: 5-NOV-1999 Inst. S/N:8957

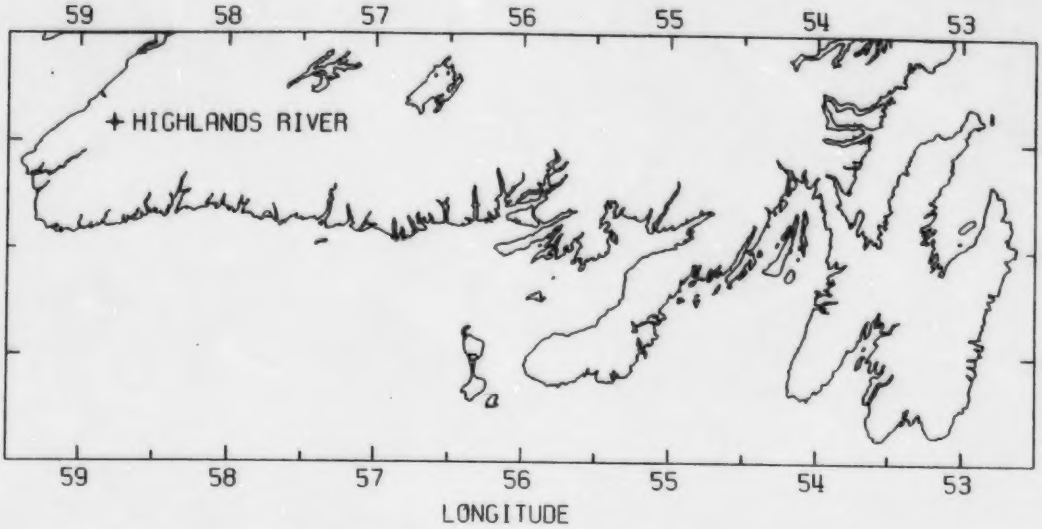
THERMOGRAPH DATA SUMMARY

STATION NAME: HIGHLANDS RIVER
STATION NUMBER: 196
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 006598
LATITUDE: 48.08° N
LONGITUDE: 58.77° W
INSTRUMENT DEPTH: 1 m
WATER DEPTH: 1 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 12-MAY-1999 17:00 GMT
RECOVERY DATE/TIME: 5-NOV-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
MAY-1999	4.80	135	18.95	140	11.70	3.01	231.2	151.2	463
JUN-1999	7.25	161	17.25	166	12.06	1.96	361.9	241.9	720
JUL-1999	9.80	188	18.85	199	13.57	1.66	420.6	296.6	744
AUG-1999	10.80	237	19.20	227	14.65	1.86	454.0	330.0	744
SEP-1999	10.50	272	17.25	256	13.87	1.38	416.0	296.0	720
OCT-1999	3.90	303	14.00	276	8.12	2.51	251.9	127.9	744
NOV-1999	4.75	306	8.70	308	6.45	1.20	32.5	12.5	114
Total Period	3.90	303	19.20	227	12.20	3.14	2168.1	1456.1	4249

345



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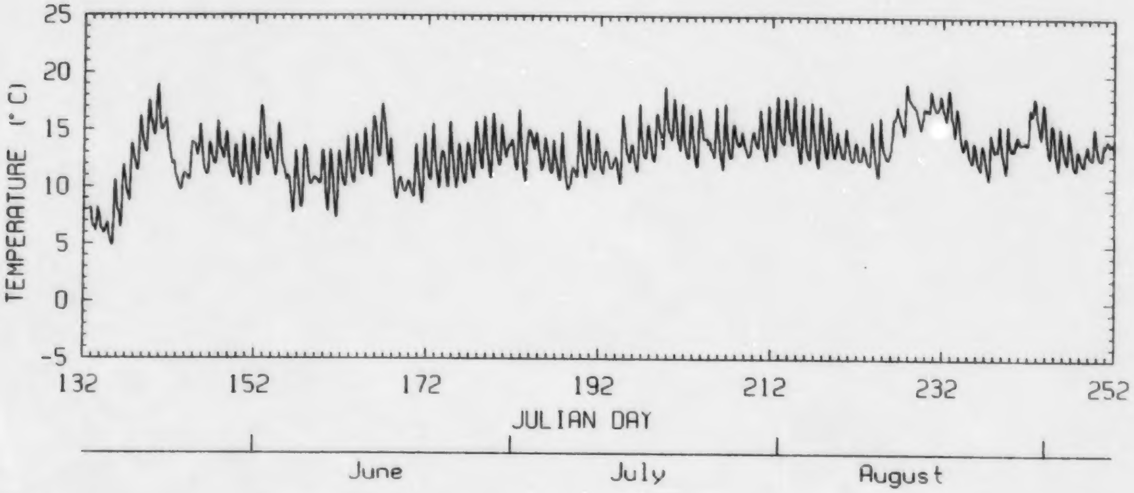
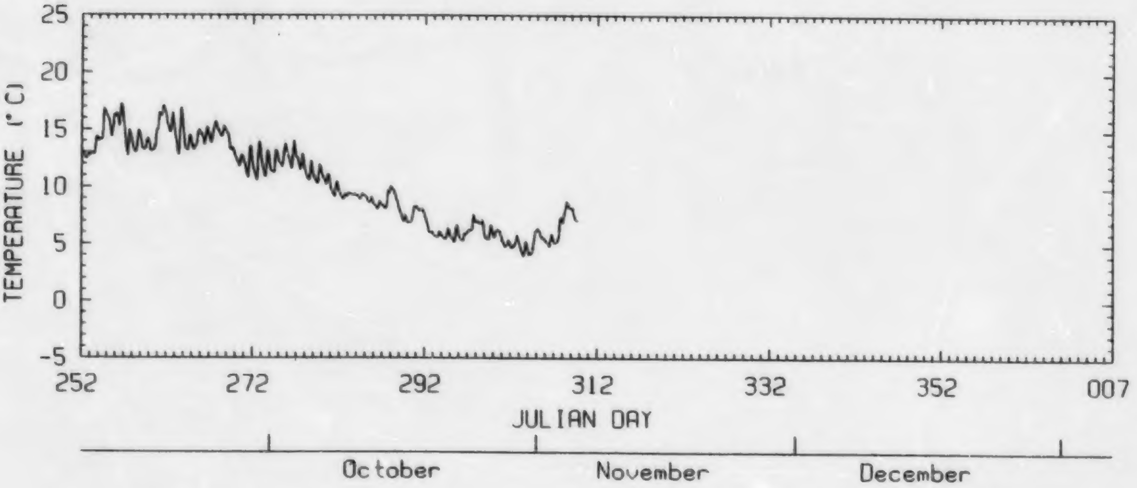
LATITUDE
LONGITUDE





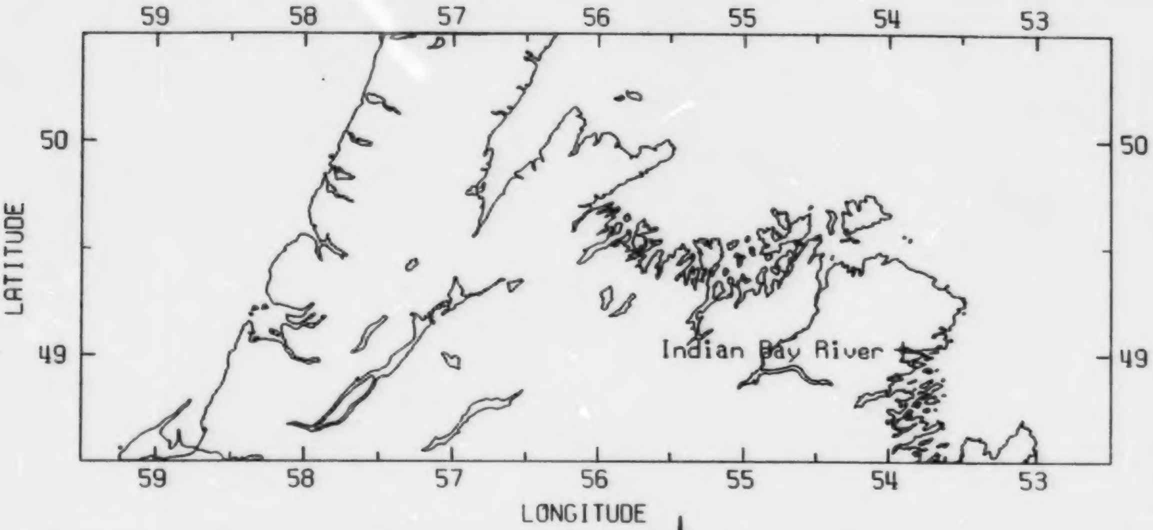
Start:12-MAY-1999 End: 5-NOV-1999 Inst. S/N:6598

THERMOGRAPH DATA SUMMARY

STATION NAME:	Indian Bay River
STATION NUMBER:	220
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007944
LATITUDE:	49.03° N
LONGITUDE:	53.90° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-JUN-1998 14:00 GMT
RECOVERY DATE/TIME:	23-OCT-1998 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	9.90	159	23.00	176	15.07	3.31	421.4	309.4	658
JUL-1998	14.00	192	25.85	201	19.23	2.70	596.1	472.1	744
AUG-1998	14.10	243	27.70	223	19.52	2.94	605.3	481.3	744
SEP-1998	12.00	262	19.95	244	14.36	1.50	430.7	310.7	720
OCT-1998	7.65	288	14.65	274	9.83	1.62	225.2	133.2	540
Total Period	7.65	288	27.70	223	15.97	4.27	2278.7	1706.7	3406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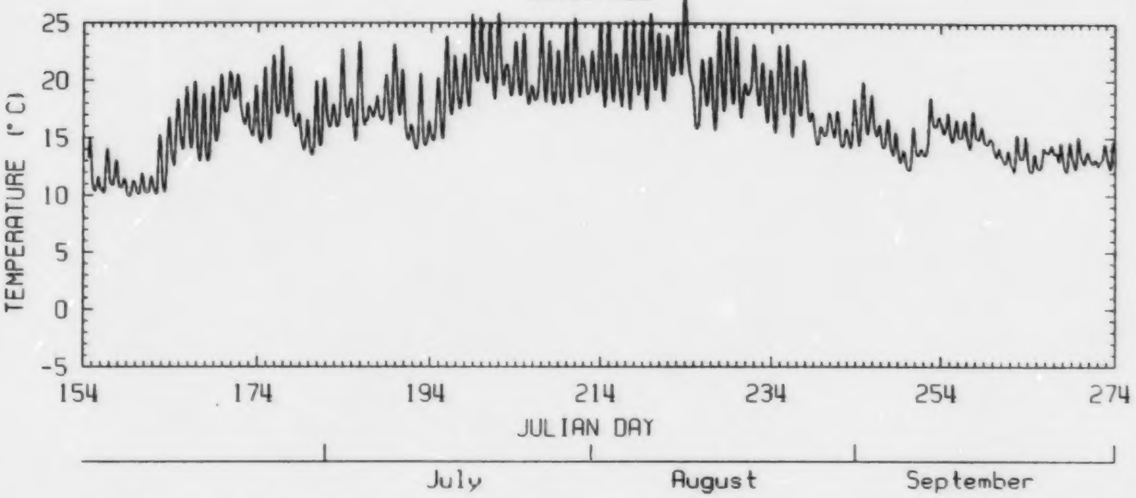
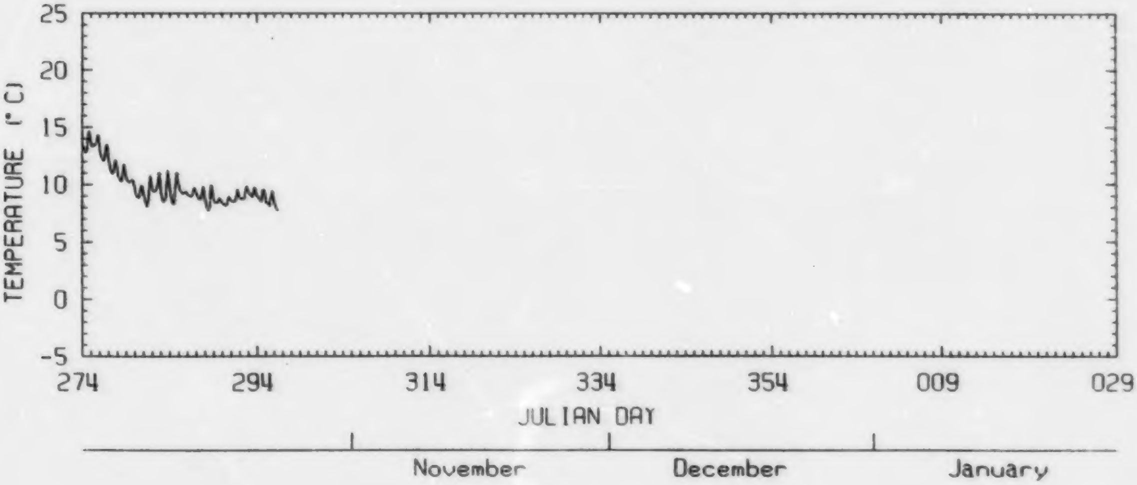
LATITUDE
Indian Bay River
LONGITUDE





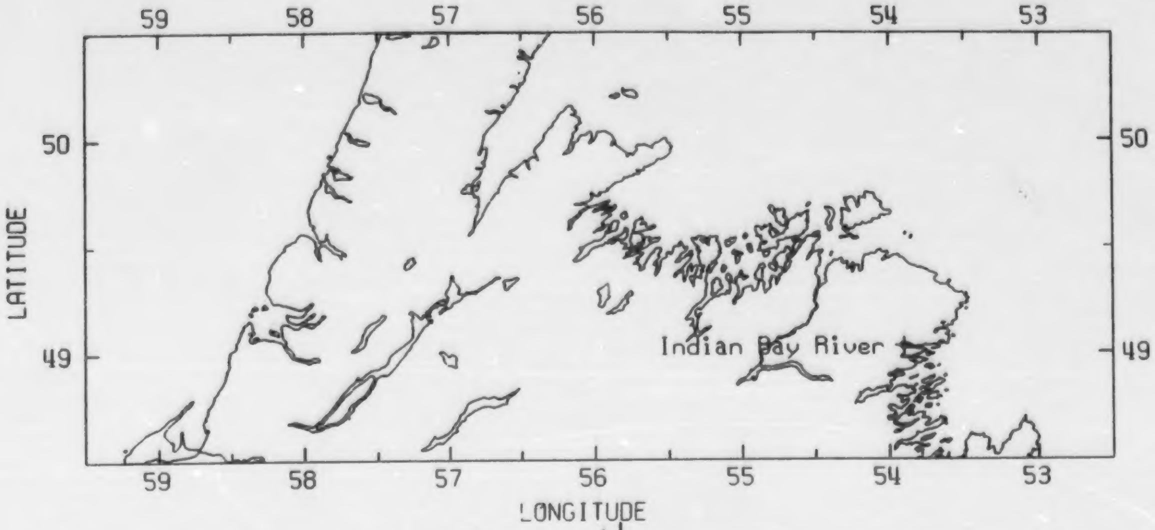
Start: 3-JUN-1998 End:23-OCT-1998 Inst. S/N:7944

THERMOGRAPH DATA SUMMARY

STATION NAME:	Indian Bay River
STATION NUMBER:	220
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007880
LATITUDE:	49.03° N
LONGITUDE:	53.90° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	2-JUN-1999 14:00 GMT
RECOVERY DATE/TIME:	31-AUG-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	10.45	161	24.20	178	16.64	3.11	481.1	365.1	682
JUL-1999	12.95	188	25.85	198	19.17	2.65	594.3	470.3	744
AUG-1999	14.20	229	27.05	215	19.04	2.55	588.9	464.9	734
Total Period	10.45	161	27.05	215	18.32	3.00	1664.3	1300.3	2160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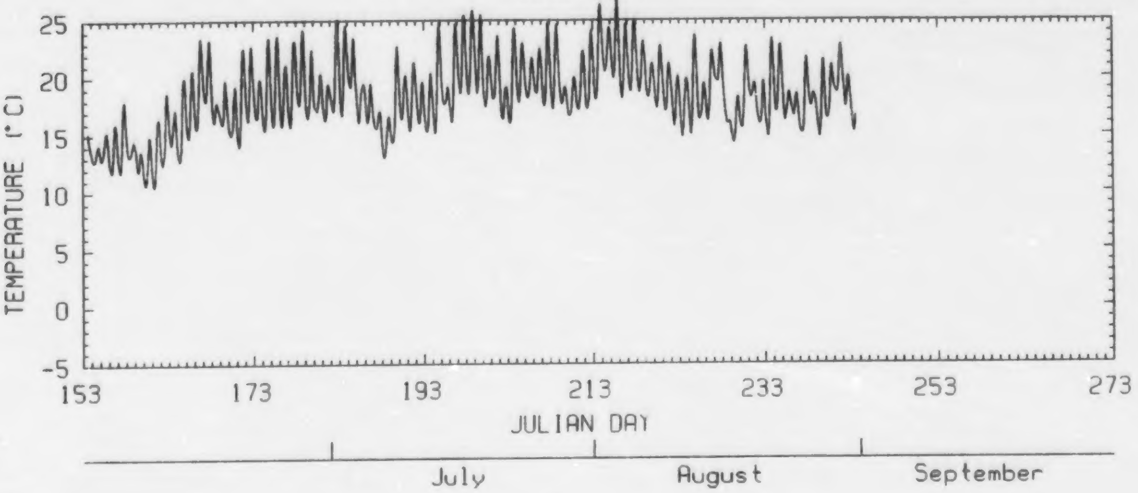
LATITUDE
Indian Bay River
LONGITUDE



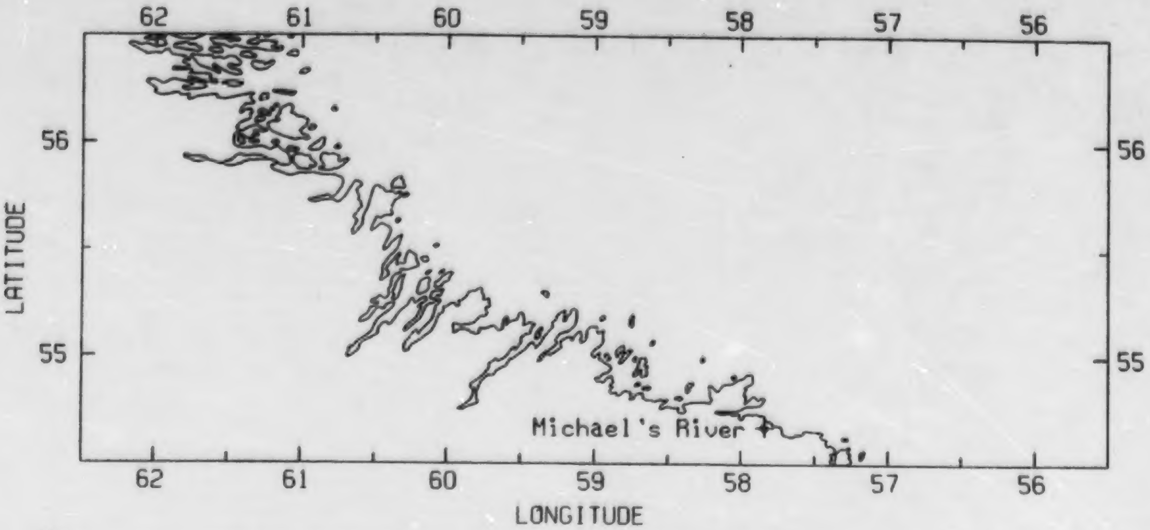
Start: 2-JUN-1999 End: 31-AUG-1999 Inst. S/N:7880

THERMOGRAPH DATA SUMMARY

STATION NAME:	Michael's River
STATION NUMBER:	216
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006593
LATITUDE:	54.67° N
LONGITUDE:	57.84° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	8-JUL-1999 21:00 GMT
RECOVERY DATE/TIME:	5-SEP-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1999	7.95	191	22.30	209	15.25	3.23	361.3	265.3	555
AUG-1999	9.90	224	21.20	215	15.14	2.57	469.4	345.4	744
SEP-1999	9.90	248	19.10	245	12.92	2.44	63.4	43.4	109
Total Period	7.95	191	22.30	209	15.01	2.91	894.0	654.0	1408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LATITUDE
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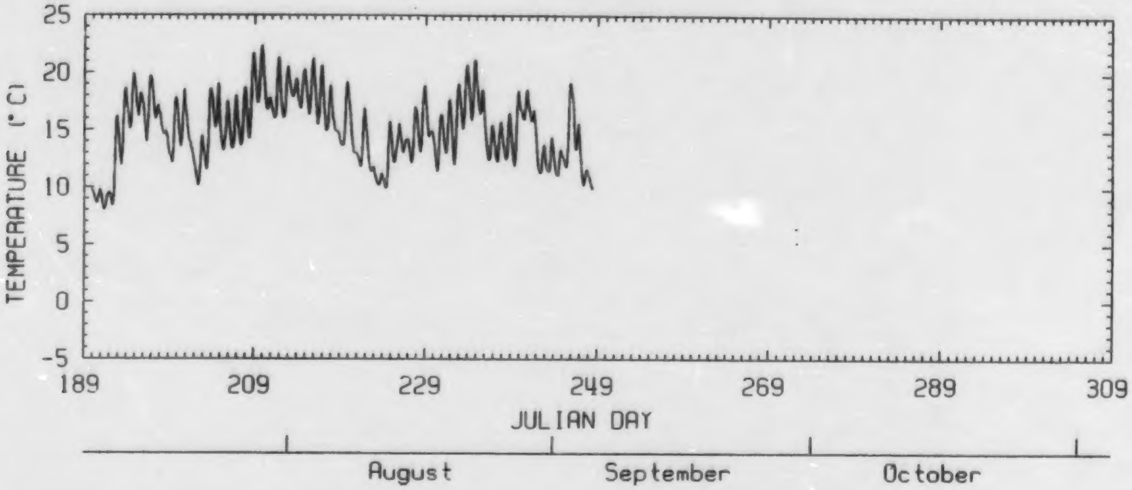
Michael's River
LONGITUDE



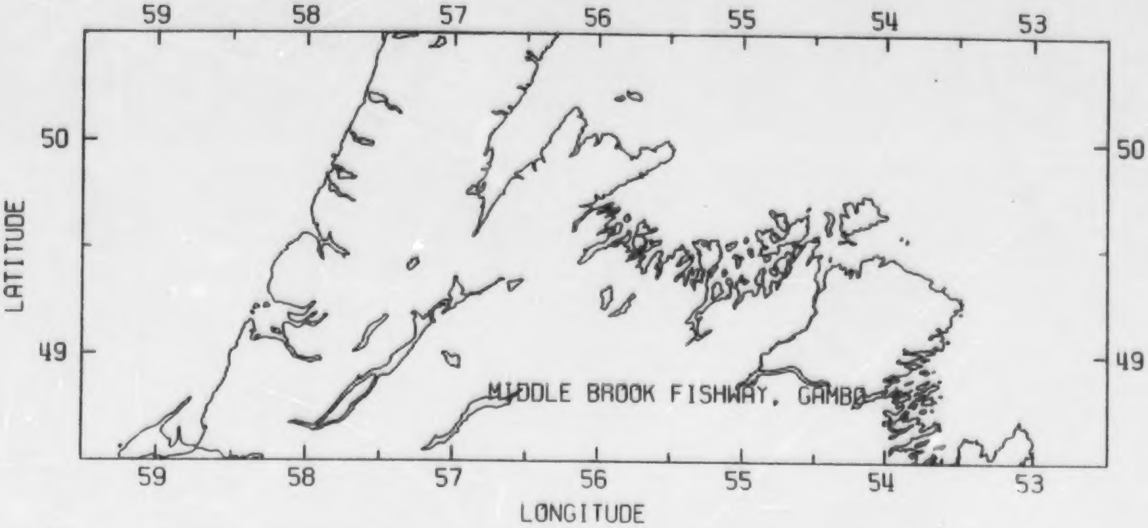
Start: 8-JUL-1999 End: 5-SEP-1999 Inst. S/N:6593

THERMOGRAPH DATA SUMMARY

STATION NAME:	MIDDLE BROOK FISHWAY, GAMBO
STATION NUMBER:	124
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006596
LATITUDE:	48.82° N
LONGITUDE:	53.92° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	2-JUN-1998 13:00 GMT
RECOVERY DATE/TIME:	6-JUN-1998 21:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	9.30	156	15.75	154	11.81	1.72	60.1	40.1	105
Total Period	9.30	156	15.75	154	11.81	1.72	60.1	40.1	105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LATITUDE
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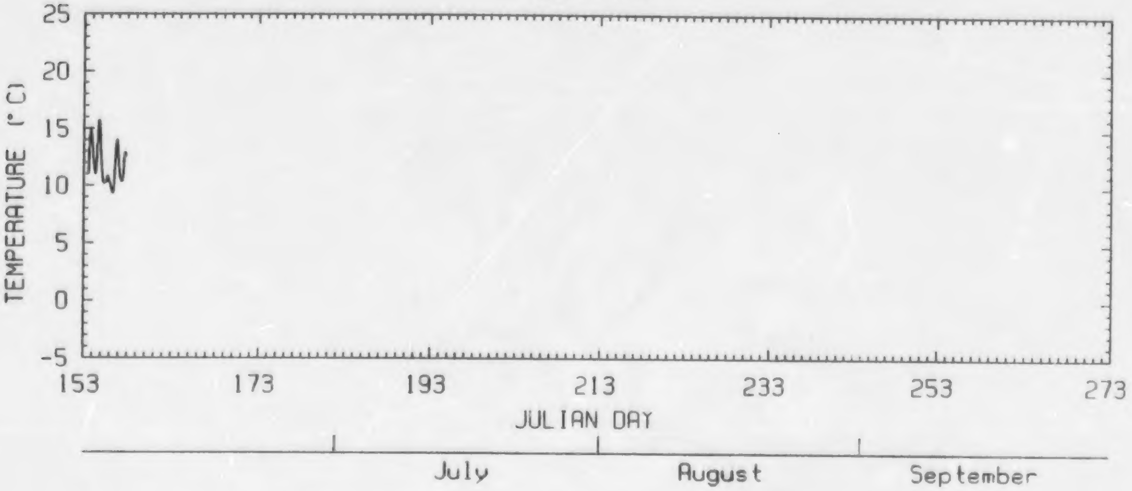
MIDDLE BROOK FISHWAY, GAMBO



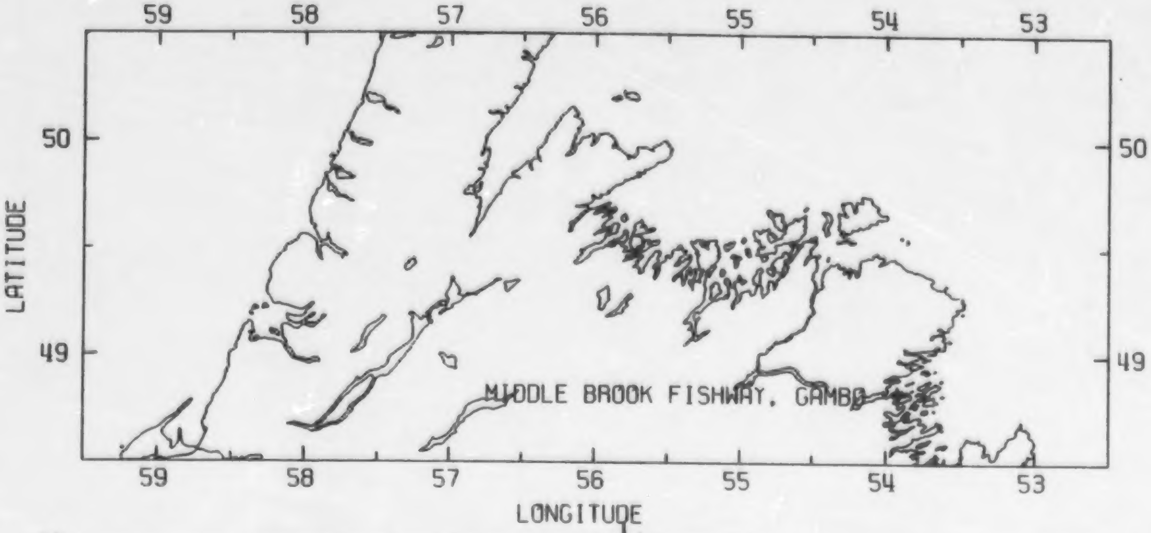
Start: 2-JUN-1998 End: 6-JUN-1998 Inst. S/N:6596

THERMOGRAPH DATA SUMMARY

STATION NAME:	MIDDLE BROOK FISHWAY, GAMBO
STATION NUMBER:	124
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007927
LATITUDE:	48.82° N
LONGITUDE:	53.92° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	1-JUN-1999 13:00 GMT
RECOVERY DATE/TIME:	3-SEP-1999 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	11.05	161	24.40	178	17.12	2.93	513.9	393.9	707
JUL-1999	13.75	188	25.30	198	19.71	2.32	611.1	487.1	744
AUG-1999	15.05	229	27.30	215	19.46	2.27	603.4	479.4	744
SEP-1999	16.65	244	24.55	246	20.12	2.04	60.6	48.6	65
Total Period	11.05	161	27.30	215	18.83	2.76	1788.9	1408.9	2260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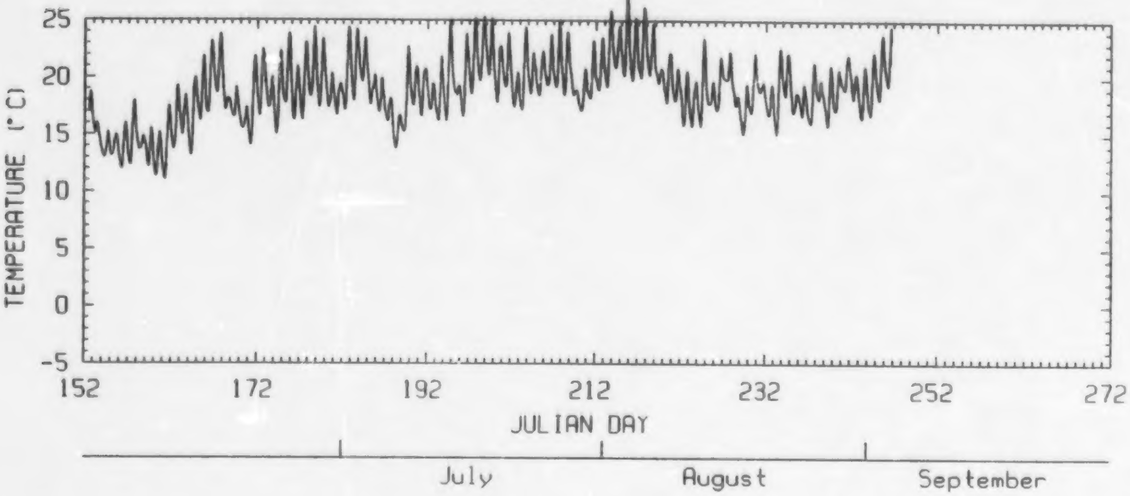
LATITUDE
MIDDLE BROOK FISHWAY, GAMBO
LONGITUDE



Start: 1-JUN-1999 End: 3-SEP-1999 Inst. S/N:7927

THERMOGRAPH DATA SUMMARY

STATION NAME: NORTH EAST PLACENTIA

STATION NUMBER: 108

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 006742

LATITUDE: 47.29° N

LONGITUDE: 53.79° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: 1 m

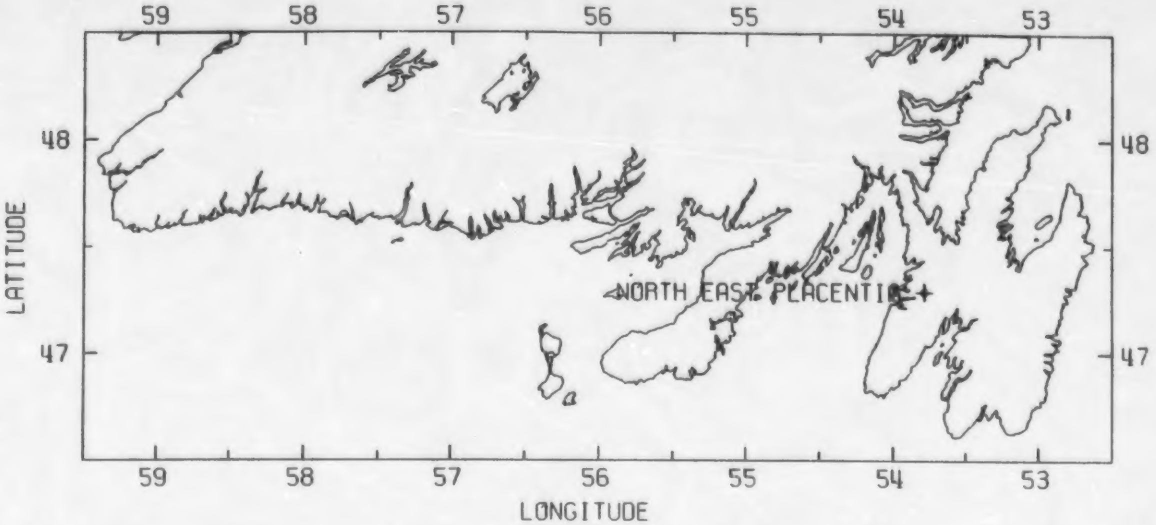
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 12-JUN-1998 15:00 GMT

RECOVERY DATE/TIME: 4-SEP-1998 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	10.35	180	23.20	176	16.87	3.08	319.4	243.4	441
JUL-1998	12.95	192	24.95	210	18.46	2.55	572.1	448.1	744
AUG-1998	15.55	243	26.35	229	19.85	2.39	615.2	491.2	744
SEP-1998	13.10	247	21.90	245	16.92	2.06	66.1	50.1	84
Total Period	10.35	180	26.35	229	18.56	2.85	1572.8	1232.8	2013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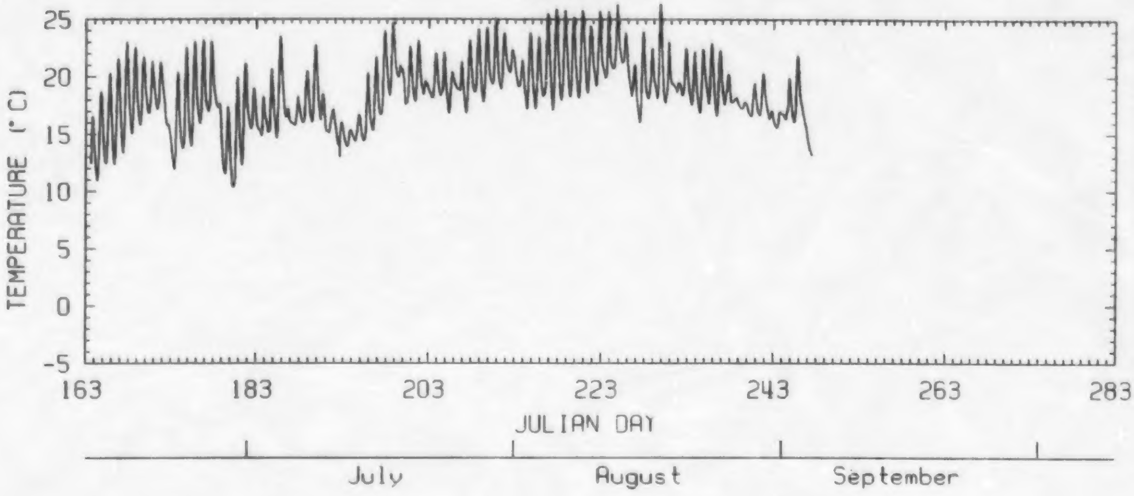
LATITUDE
NORTH EAST PLACENTIA
LONGITUDE



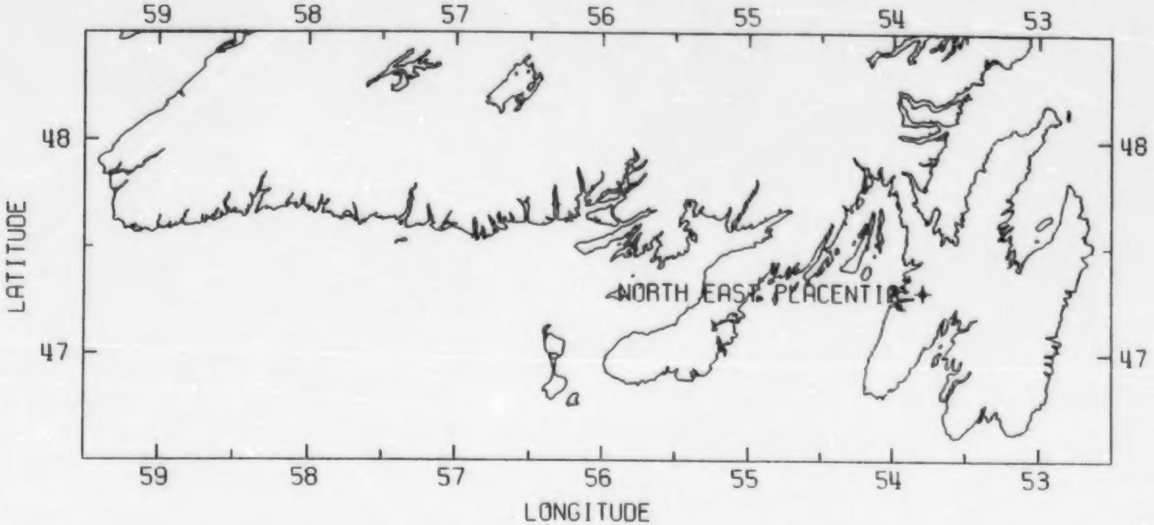
Start: 12-JUN-1998 End: 4-SEP-1998 Inst. S/N:6742

THERMOGRAPH DATA SUMMARY

STATION NAME:	NORTH EAST PLACENTIA
STATION NUMBER:	108
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006596
LATITUDE:	47.29° N
LONGITUDE:	53.79° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	2-JUN-1999 14:00 GMT
RECOVERY DATE/TIME:	3-SEP-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	10.10	160	25.45	165	16.44	2.87	477.2	361.2	682
JUL-1999	13.85	188	26.80	206	19.01	2.42	589.2	465.2	744
AUG-1999	12.95	233	25.80	215	19.18	2.25	594.7	470.7	744
SEP-1999	12.40	244	24.45	245	17.89	3.36	53.8	41.8	61
Total Period	10.10	160	26.80	206	18.25	2.82	1715.0	1339.0	2231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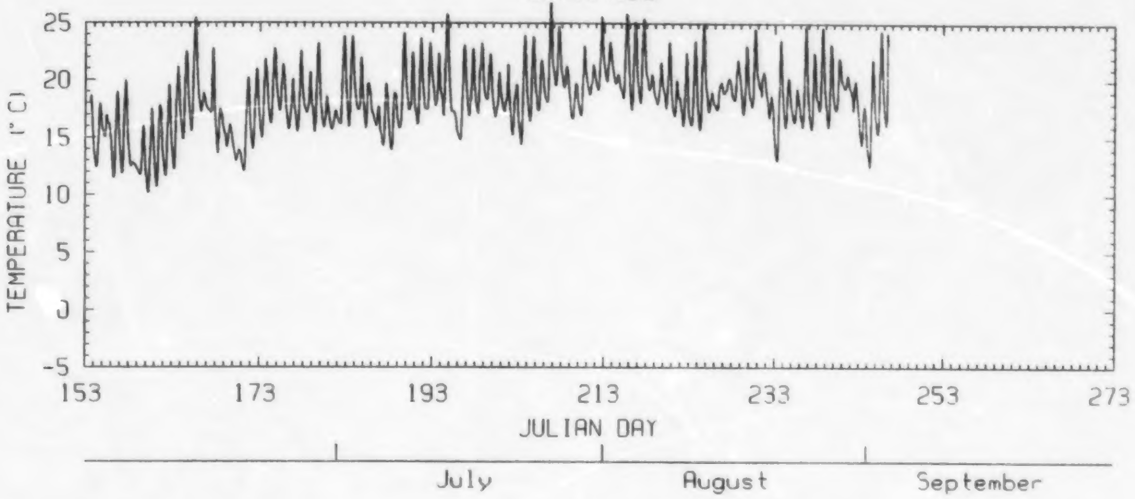
LATITUDE
LONGITUDE
NORTH EAST PLACENTIA



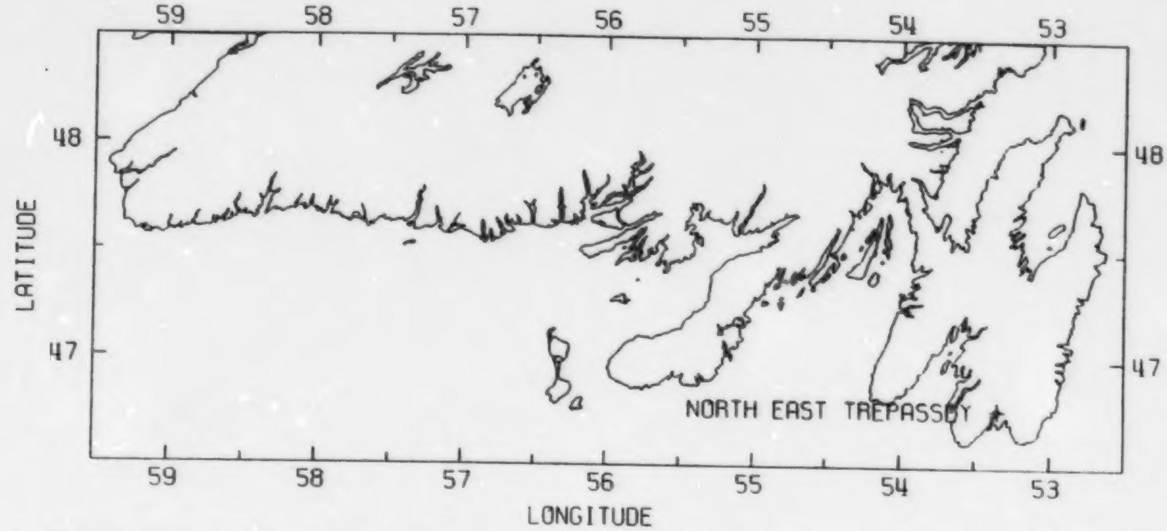
Start: 2-JUN-1999 End: 3-SEP-1999 Inst. S/N:6596

THERMOGRAPH DATA SUMMARY

STATION NAME:	NORTH EAST TREPASSEY
STATION NUMBER:	130
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007936
LATITUDE:	46.77° N
LONGITUDE:	53.35° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	14-JUN-1998 13:00 GMT
RECOVERY DATE/TIME:	6-OCT-1998 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	11.65	180	21.65	167	16.30	2.02	277.9	209.9	395
JUL-1998	12.10	183	23.05	198	16.29	2.44	504.9	380.9	744
AUG-1998	14.90	243	24.10	229	18.74	2.17	581.0	457.0	744
SEP-1998	10.45	271	18.50	245	13.15	1.37	394.5	274.5	720
OCT-1998	9.50	279	12.90	274	11.18	0.91	66.5	42.5	135
Total Period	9.50	279	24.10	229	15.88	3.06	1824.8	1364.8	2738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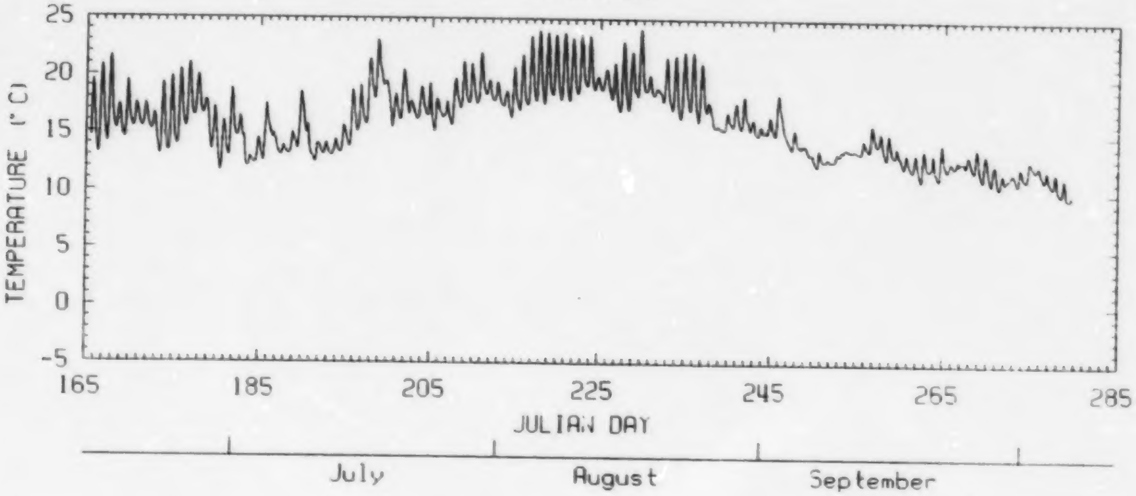
LATITUDE
LONGITUDE
NORTH EAST TREPASSEY



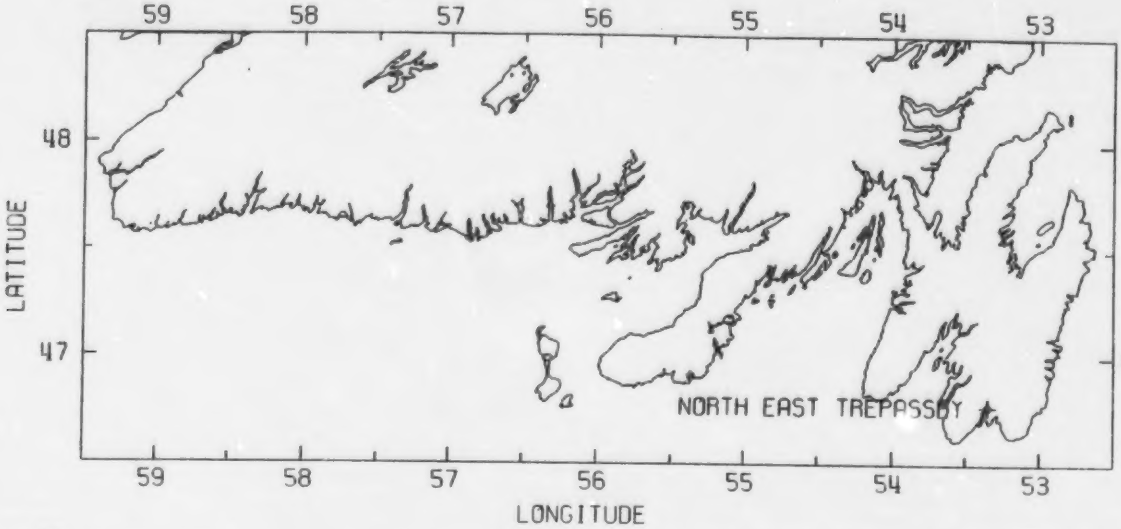
Start: 14-JUN-1998 End: 6-OCT-1998 Inst. S/N:7936

THERMOGRAPH DATA SUMMARY

STATION NAME:	NORTH EAST TREPASSEY
STATION NUMBER:	130
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007934
LATITUDE:	46.77° N
LONGITUDE:	53.35° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	29-APR-1999 12:00 GMT
RECOVERY DATE/TIME:	27-OCT-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
APR-1999	5.50	120	6.45	119	5.89	0.23	11.8	3.8	36
MAY-1999	5.20	121	19.75	140	11.80	2.87	365.8	241.8	744
JUN-1999	10.50	160	21.15	165	15.04	2.17	451.2	331.2	720
JUL-1999	13.35	182	24.15	206	17.88	1.94	554.3	430.3	744
AUG-1999	15.60	233	24.55	217	19.23	1.68	596.2	472.2	744
SEP-1999	11.55	272	22.85	246	16.56	1.93	496.7	376.7	720
OCT-1999	6.15	296	15.35	276	10.19	2.27	273.8	165.8	637
Total Period	5.20	121	24.55	217	15.15	3.92	2749.9	2021.9	4345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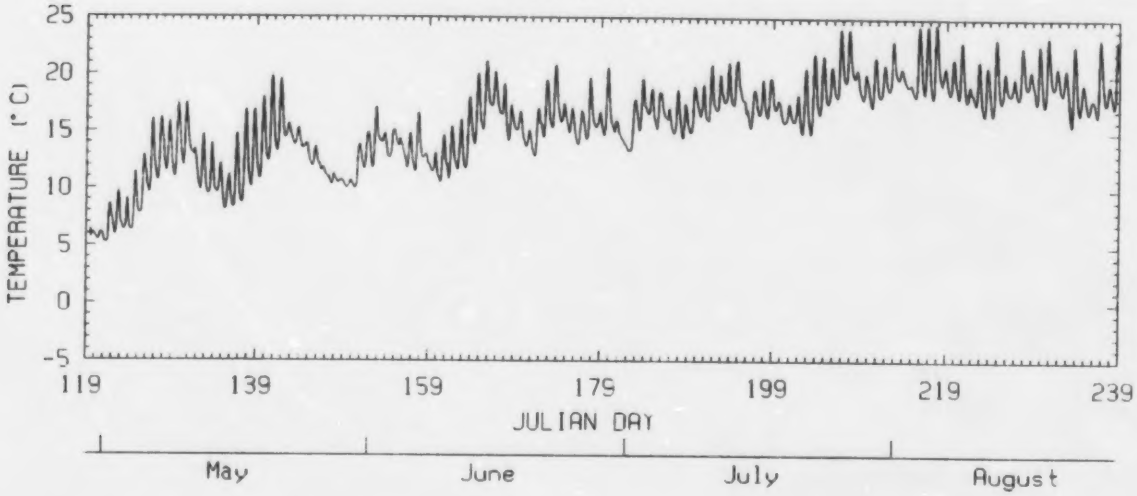
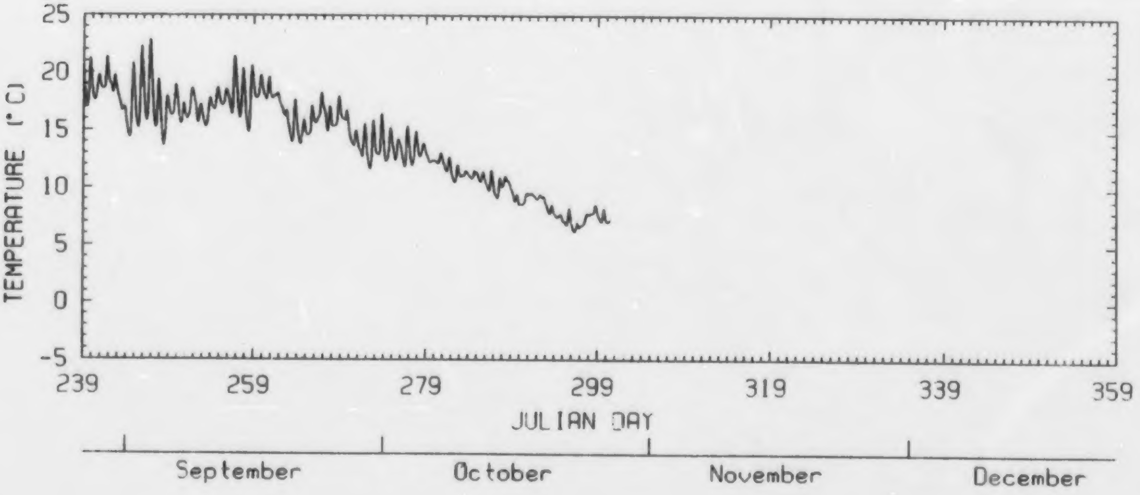
LATITUDE
LONGITUDE
NORTH EAST TREPASSEY





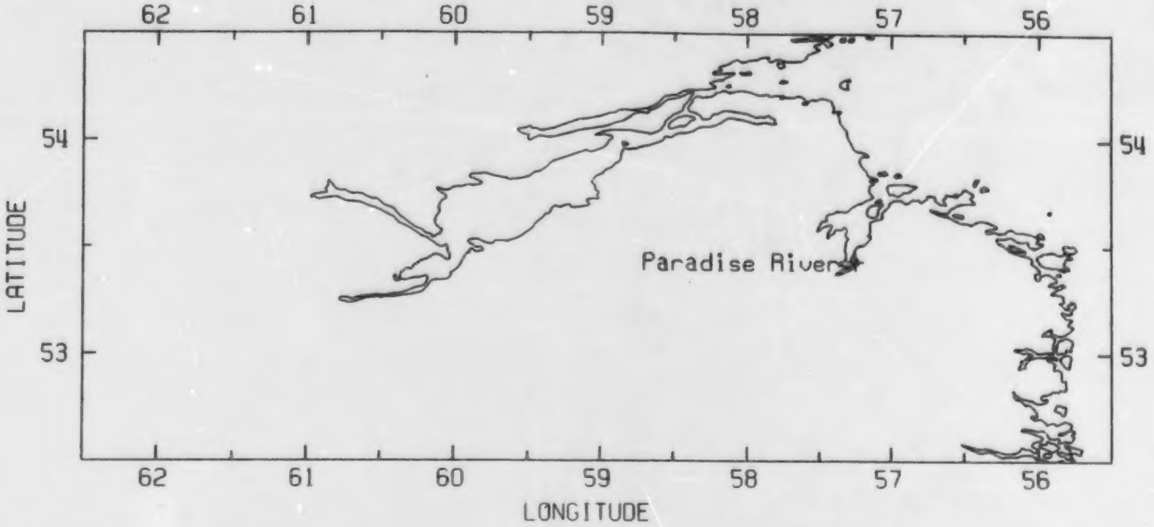
Start:29-APR-1999 End:27-OCT-1999 Inst. S/N:7934

THERMOGRAPH DATA SUMMARY

STATION NAME:	Paradise River
STATION NUMBER:	229
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	007820
LATITUDE:	53.43° N
LONGITUDE:	57.25° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	30 min.
DEPLOYMENT DATE/TIME:	24-JUL-1998 14:00 GMT
RECOVERY DATE/TIME:	10-SEP-1998 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUL-1998	12.90	208	21.35	211	16.94	2.19	136.3	104.3	356
AUG-1998	10.55	242	23.55	222	15.86	2.74	491.7	367.7	1488
SEP-1998	9.85	250	14.60	246	11.79	1.31	117.4	77.4	459
Total Period	9.85	250	23.55	222	15.22	3.00	745.4	549.4	2303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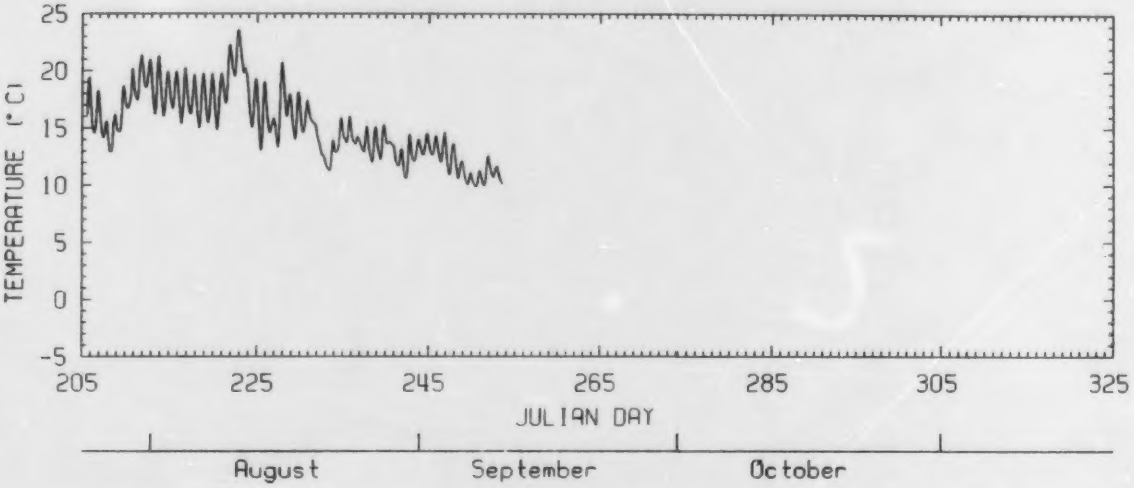
LATITUDE
LONGITUDE
Paradise River



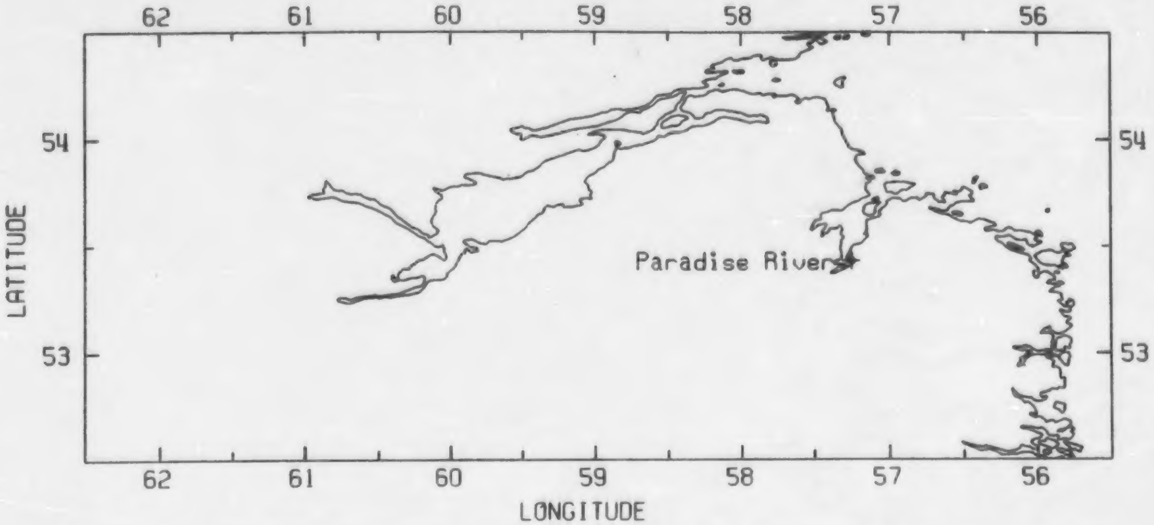
Start: 24-JUL-1998   End: 10-SEP-1998   Inst. S/N:7820

THERMOGRAPH DATA SUMMARY

STATION NAME:	Paradise River
STATION NUMBER:	229
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008972
LATITUDE:	53.43° N
LONGITUDE:	57.25° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	17-JUN-1999 19:00 GMT
RECOVERY DATE/TIME:	24-SEP-1999 12:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	11.85	169	24.05	176	17.05	2.75	236.7	180.7	317
JUL-1999	10.05	187	22.00	211	15.70	3.40	486.8	362.8	744
AUG-1999	11.55	224	22.30	235	15.99	2.17	495.6	371.6	744
SEP-1999	8.50	253	19.45	245	12.71	2.10	304.2	208.2	565
Total Period	8.50	253	24.05	176	15.26	3.06	1523.4	1123.4	2370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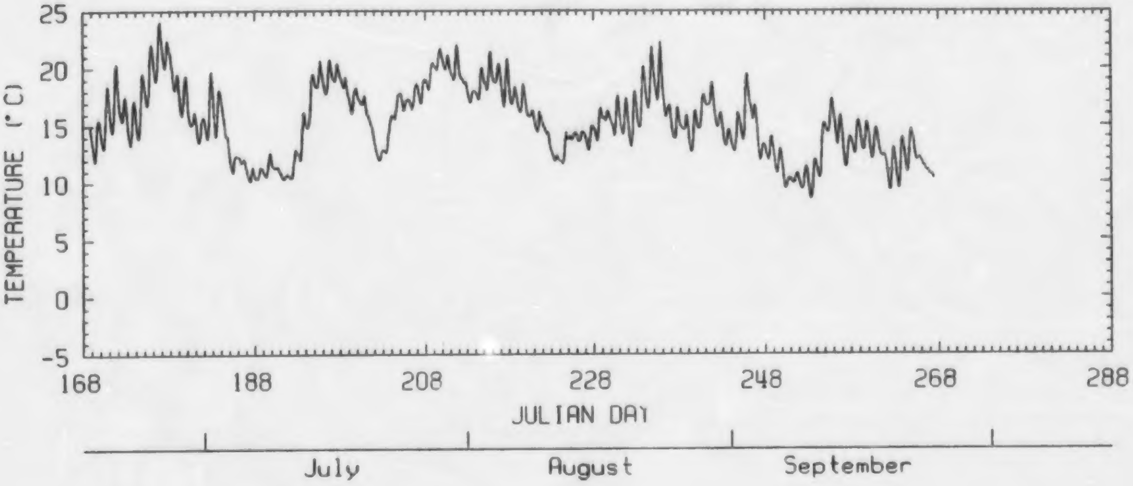
LATITUDE
LONGITUDE
Paradise River



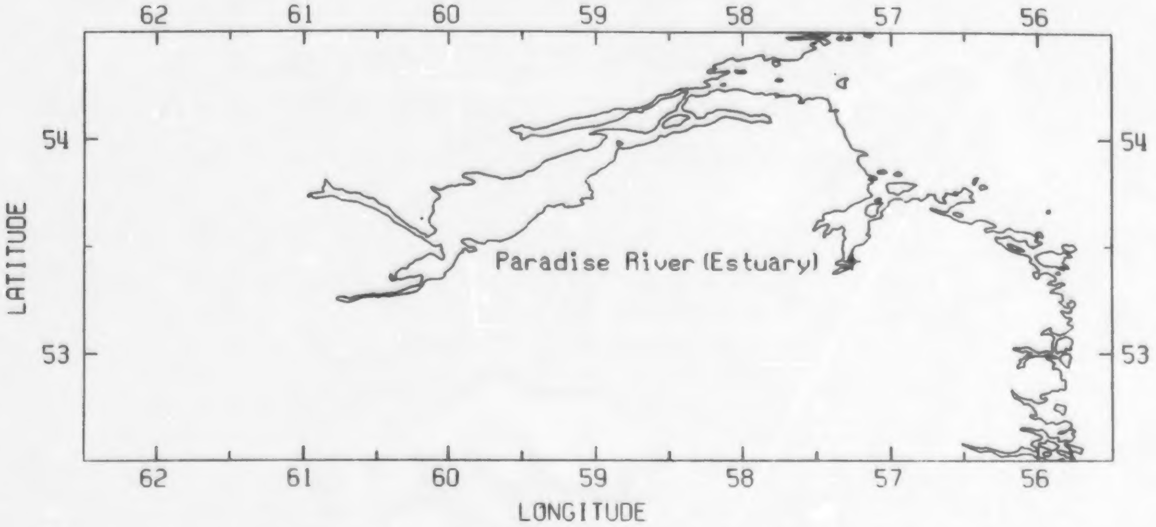
Start: 17-JUN-1999 End: 24-SEP-1999 Inst. S/N:8972

THERMOGRAPH DATA SUMMARY

STATION NAME:	Paradise River(Estuary)
STATION NUMBER:	232
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006250
LATITUDE:	53.43° N
LONGITUDE:	57.26° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	16-JUN-1998 23:00 GMT
RECOVERY DATE/TIME:	5-SEP-1998 16:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	2.60	175	19.50	170	15.69	3.00	237.6	177.6	337
JUL-1998	4.30	196	19.50	197	14.39	3.03	446.2	322.2	744
AUG-1998	7.70	231	20.00	213	13.82	2.38	428.3	304.3	744
SEP-1998	9.00	248	14.30	244	12.79	1.21	63.5	43.5	113
Total Period	2.60	175	20.00	213	14.30	2.81	1175.7	847.7	1938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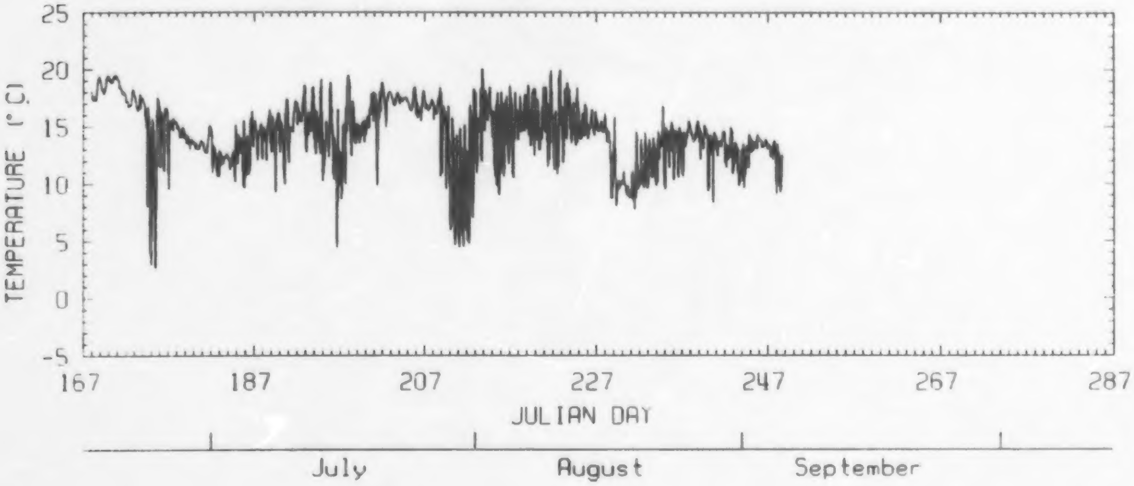
LATITUDE
LONGITUDE
Paradise River (Estuary)



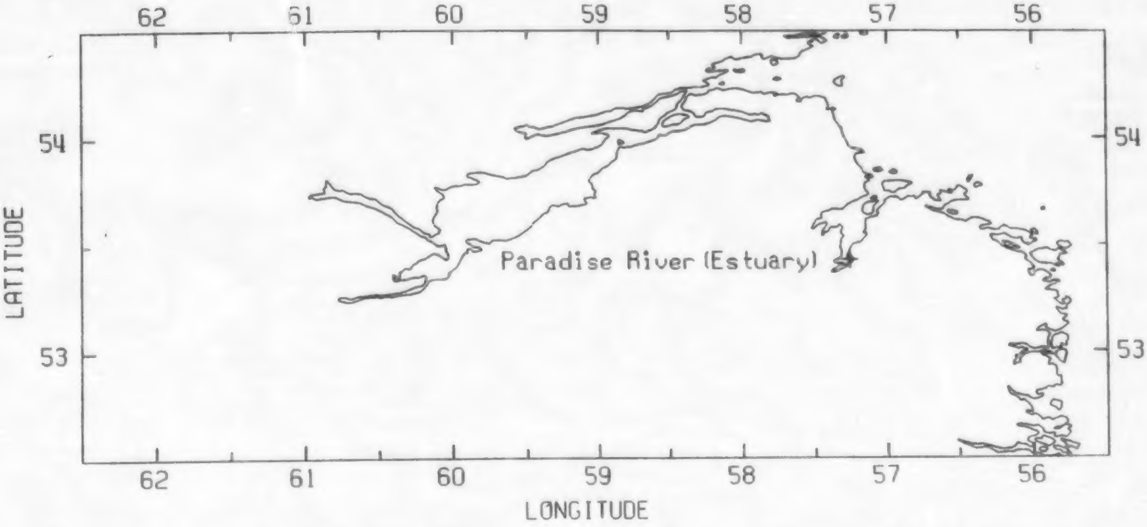
Start: 16-JUN-1998 End: 5-SEP-1998 Inst. S/N:6250

THERMOGRAPH DATA SUMMARY

STATION NAME:	Paradise River(Estuary)
STATION NUMBER:	232
INSTRUMENT TYPE:	Minilog-T (Vemco)
INSTRUMENT S/N:	006434
LATITUDE:	53.43° N
LONGITUDE:	57.26° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	17-JUN-1999 12:00 GMT
RECOVERY DATE/TIME:	20-SEP-1999 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	5.30	178	18.00	173	11.41	2.98	160.0	104.0	324
JUL-1999	5.60	195	20.20	210	14.50	2.59	449.4	325.4	744
AUG-1999	7.00	241	20.30	217	14.13	2.00	437.9	313.9	744
SEP-1999	7.30	256	16.00	246	10.79	1.28	215.7	135.7	471
Total Period	5.30	178	20.30	217	13.17	2.75	1263.1	879.1	2283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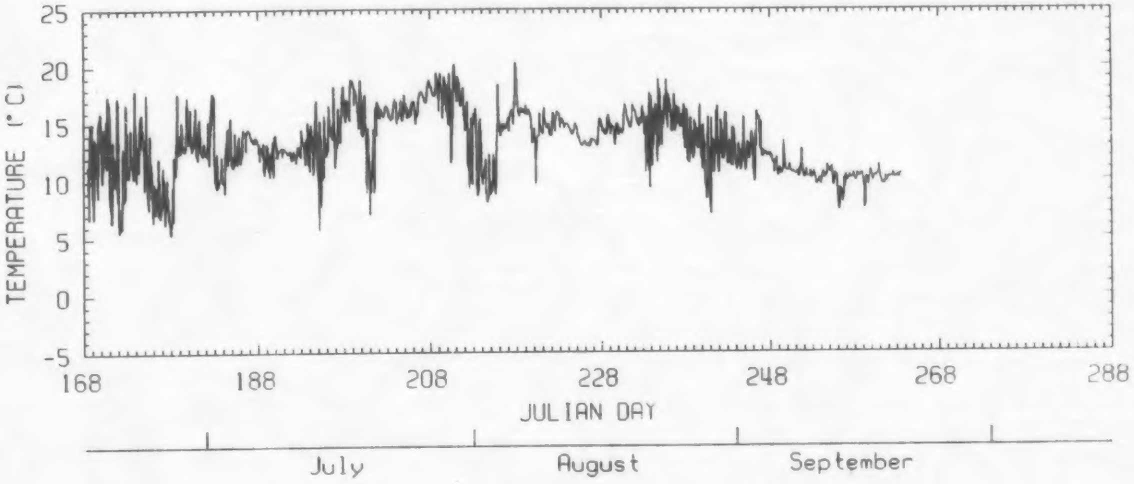
LATITUDE
LONGITUDE
Paradise River (Estuary)



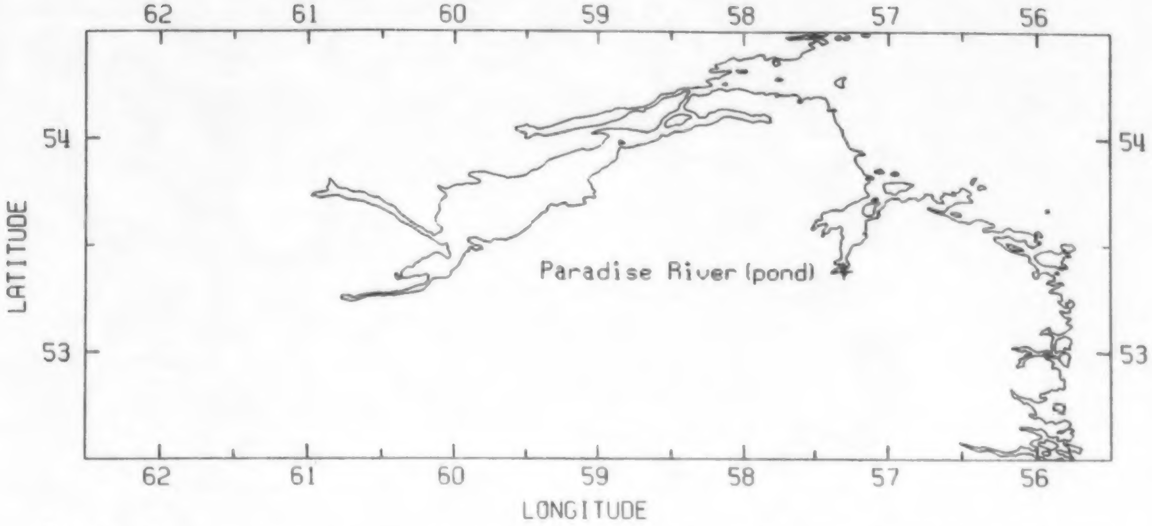
Start: 17-JUN-1999   End: 20-SEP-1999   Inst. S/N:6434

THERMOGRAPH DATA SUMMARY

STATION NAME: Paradise River(pond)
STATION NUMBER: 231
INSTRUMENT TYPE: Minilog-T (Vemco)
INSTRUMENT S/N: 006247
LATITUDE: 53.38° N
LONGITUDE: 57.30° W
INSTRUMENT DEPTH: 1 m
WATER DEPTH: Not Applicable
SAMPLING INTERVAL: 30 min.
DEPLOYMENT DATE/TIME: 19-JUN-1998 04:00 GMT
RECOVERY DATE/TIME: 6-SEP-1998 14:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	11.50	181	19.90	170	15.97	2.23	192.2	144.2	284
JUL-1998	11.50	184	21.00	197	16.79	2.05	520.5	396.5	744
AUG-1998	12.90	242	21.10	222	16.71	2.31	518.0	394.0	744
SEP-1998	11.70	249	13.90	245	13.15	0.50	78.5	54.5	135
Total Period	11.50	181	21.10	222	16.38	2.32	1309.3	989.3	1907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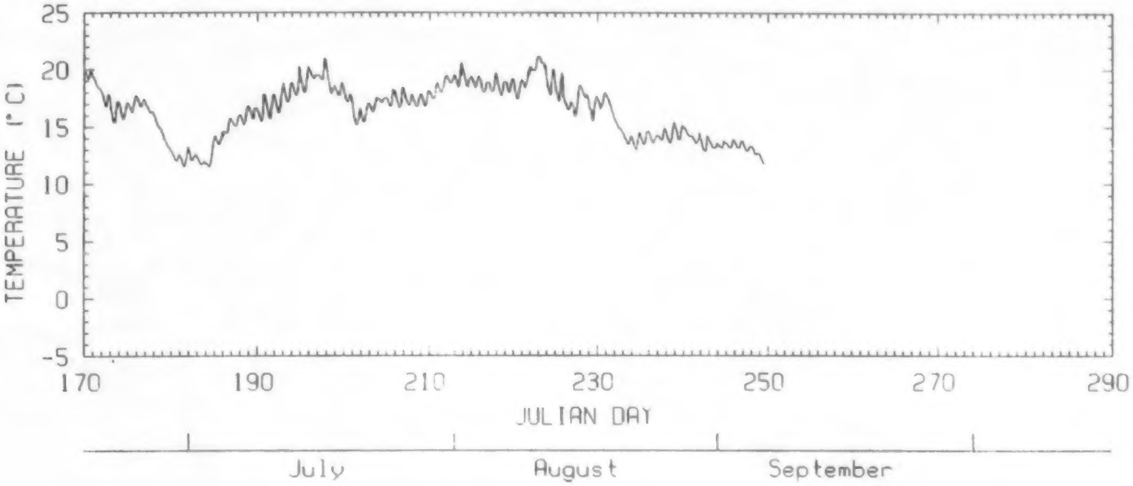
LATITUDE
LONGITUDE
Paradise River (pond)



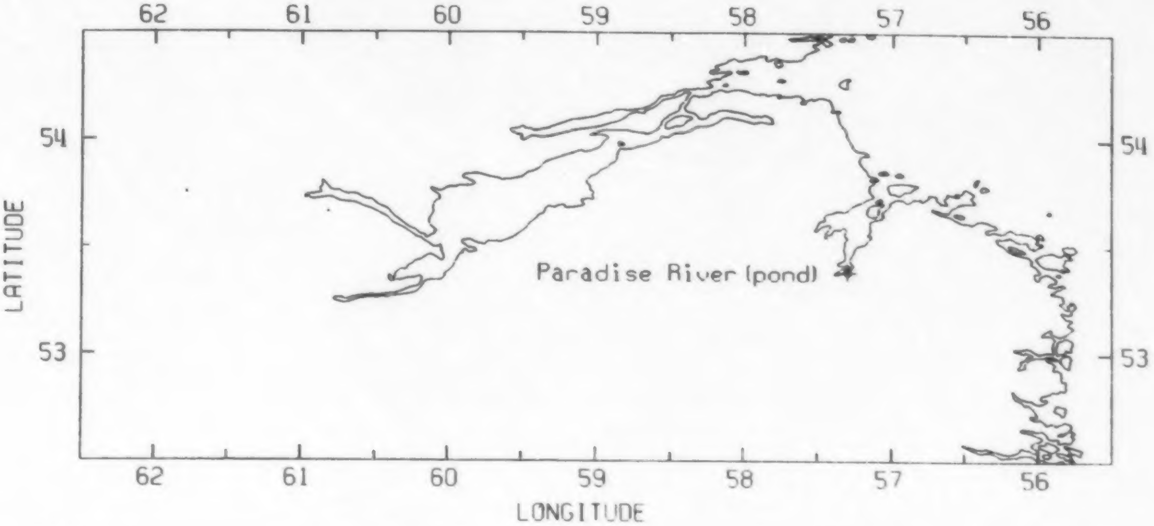
Start: 19-JUN-1998 End: 6-SEP-1998 Inst. S/N:6247

THERMOGRAPH DATA SUMMARY

STATION NAME:	Paradise River(pond)
STATION NUMBER:	231
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006744
LATITUDE:	53.38° N
LONGITUDE:	57.30° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	Not Applicable
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	18-JUN-1999 15:00 GMT
RECOVERY DATE/TIME:	19-SEP-1999 17:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	15.05	170	21.55	176	18.08	1.93	233.8	181.8	297
JUL-1999	11.45	189	21.25	210	16.59	2.82	514.2	390.2	744
AUG-1999	11.80	224	20.25	215	16.54	2.05	512.9	388.9	744
SEP-1999	10.50	253	16.80	245	13.93	1.44	264.4	188.4	450
Total Period	10.50	253	21.55	176	16.24	2.56	1525.2	1149.2	2235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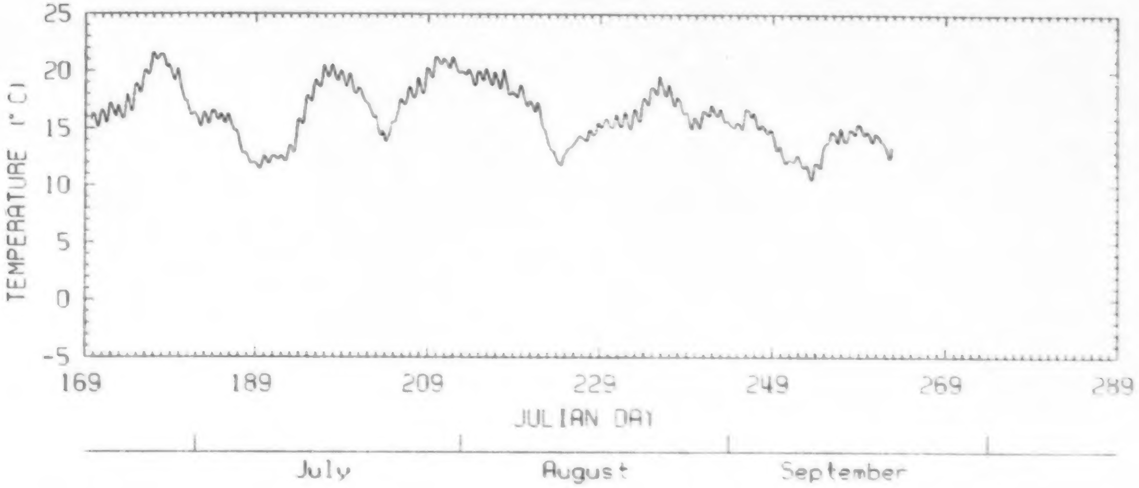
LATITUDE
LONGITUDE
Paradise River (pond)



Start: 18-JUN-1999 End: 19-SEP-1999 Inst. S/N:6744

THERMOGRAPH DATA SUMMARY

STATION NAME:	SALMON BROOK
STATION NUMBER:	152
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	008972
LATITUDE:	49.00° N
LONGITUDE:	54.90° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	15-JUN-1998 19:00 GMT
RECOVERY DATE/TIME:	4-SEP-1998 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	13.70	180	23.10	176	18.59	2.12	299.3	235.3	365
JUL-1998	14.80	192	23.50	201	19.93	1.80	617.8	493.8	744
AUG-1998	15.00	243	25.50	223	19.73	2.44	611.6	487.6	744
SEP-1998	14.90	244	17.80	245	16.15	0.69	64.4	48.4	84
Total Period	13.70	180	25.50	223	19.44	2.27	1593.1	1265.1	1937

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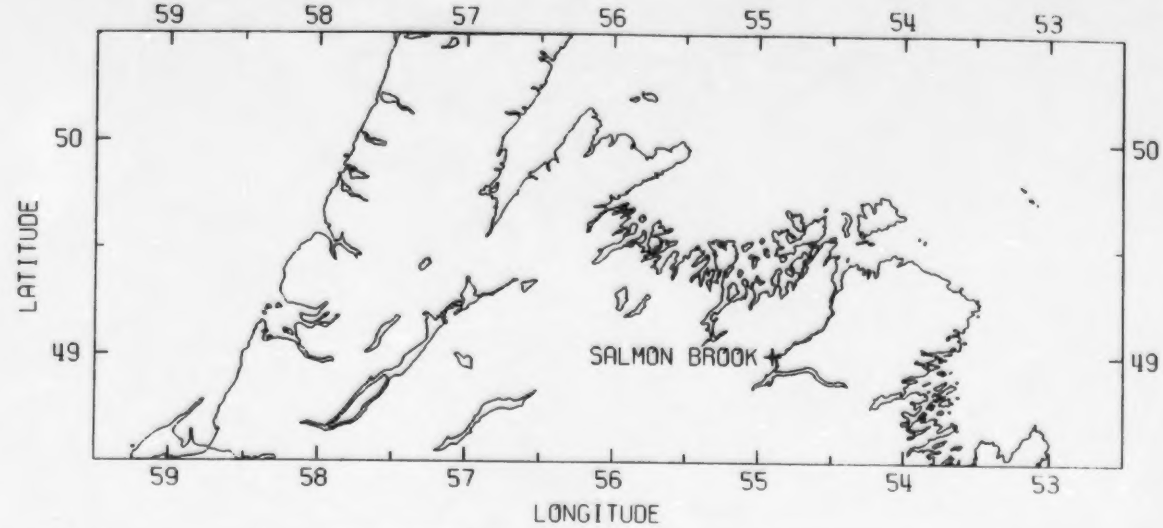
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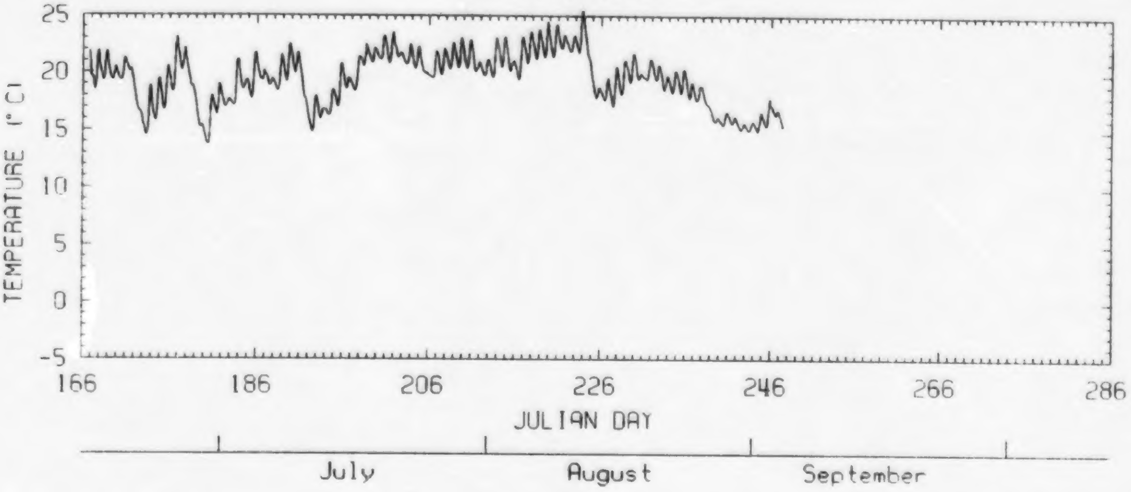
LATITUDE
LONGITUDE
SALMON BROOK



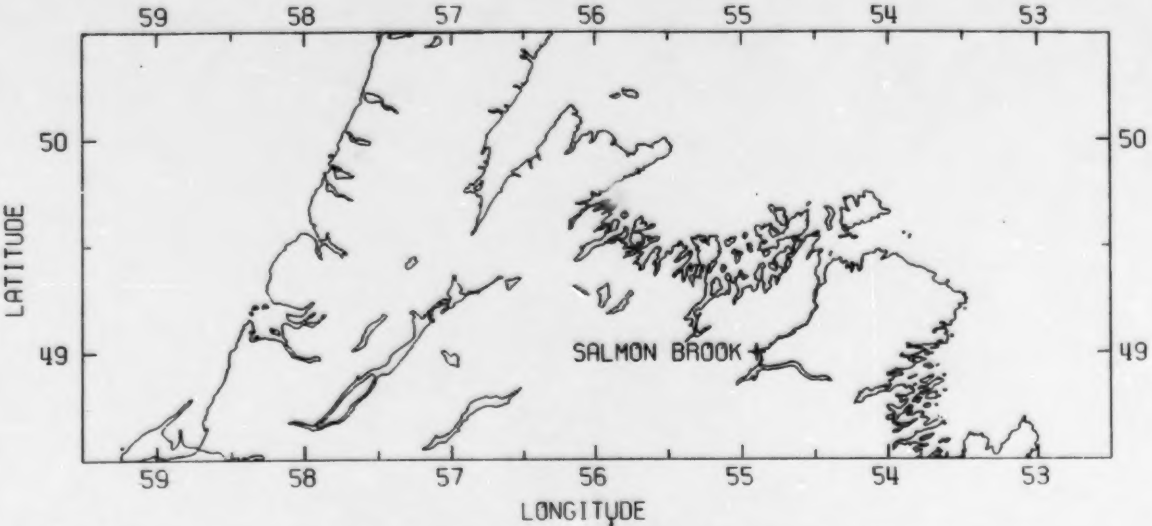
Start: 15-JUN-1998 End: 4-SEP-1998 Inst. S/N:8972

THERMOGRAPH DATA SUMMARY

STATION NAME:	SALMON BROOK
STATION NUMBER:	152
INSTRUMENT TYPE:	Seamon UTR-B (Hugrun)
INSTRUMENT S/N:	006641
LATITUDE:	49.00° N
LONGITUDE:	54.90° W
INSTRUMENT DEPTH:	1 m
WATER DEPTH:	1 m
SAMPLING INTERVAL:	60 min.
DEPLOYMENT DATE/TIME:	3-JUN-1999 11:00 GMT
RECOVERY DATE/TIME:	3-SEP-1999 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	11.10	160	23.95	177	18.08	3.12	504.8	392.8	661
JUL-1999	13.80	188	24.95	199	19.86	2.30	615.8	491.8	744
AUG-1999	15.60	223	27.35	215	19.66	2.36	609.3	485.3	744
SEP-1999	17.75	244	21.55	245	19.59	1.04	59.0	47.0	62
Total Period	11.10	160	27.35	215	19.25	2.68	1788.9	1416.9	2211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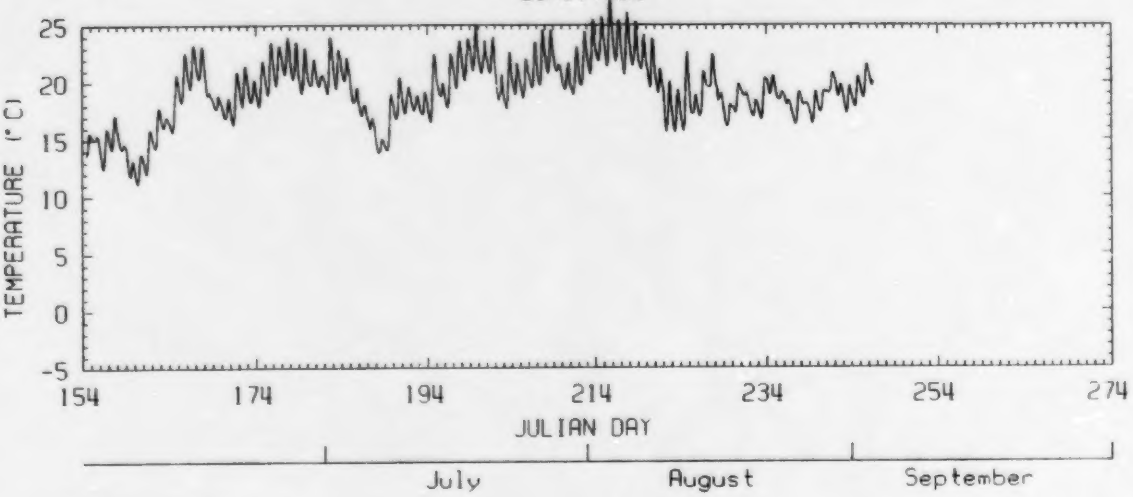
LATITUDE
SALMON BROOK
LONGITUDE



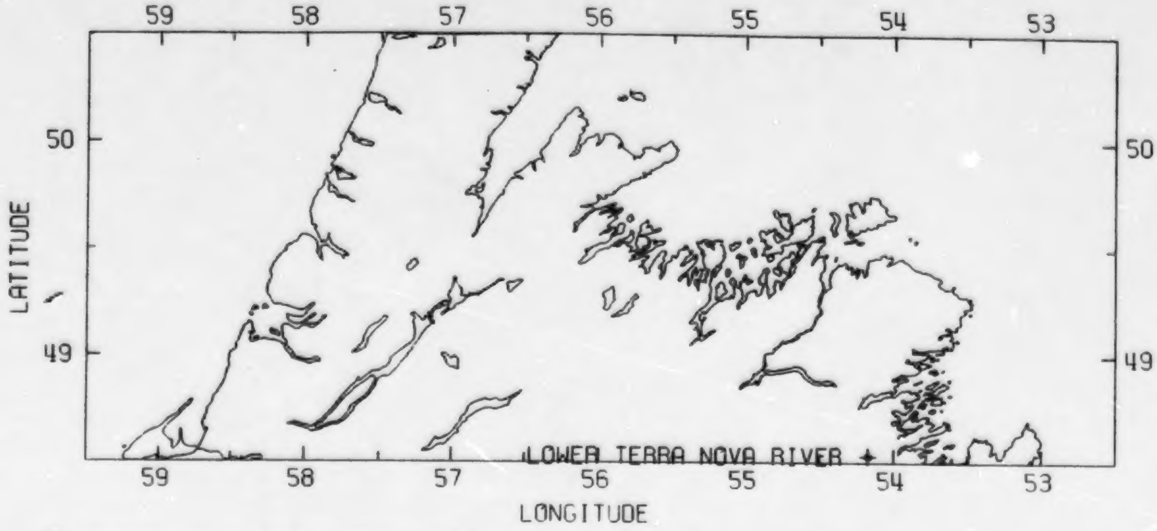
Start: 3-JUN-1999 End: 3-SEP-1999 Inst. S/N:6641

THERMOGRAPH DATA SUMMARY

STATION NAME: LOWER TERRA NOVA RIVER
STATION NUMBER: 115
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 008968
LATITUDE: 48.53° N
LONGITUDE: 54.17° W
INSTRUMENT DEPTH: 1 m
WATER DEPTH: 1 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 9-JUN-1998 12:00 GMT
RECOVERY DATE/TIME: 18-SEP-1998 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1998	9.25	161	21.35	177	16.96	3.18	369.3	281.3	516
JUL-1998	14.55	194	24.60	201	19.71	2.14	611.0	487.0	744
AUG-1998	15.30	243	24.45	223	19.95	2.03	618.4	494.4	744
SEP-1998	12.30	261	18.05	245	15.69	1.55	281.1	209.1	420
Total Period	9.25	161	24.60	201	18.50	2.86	1879.8	1471.8	2424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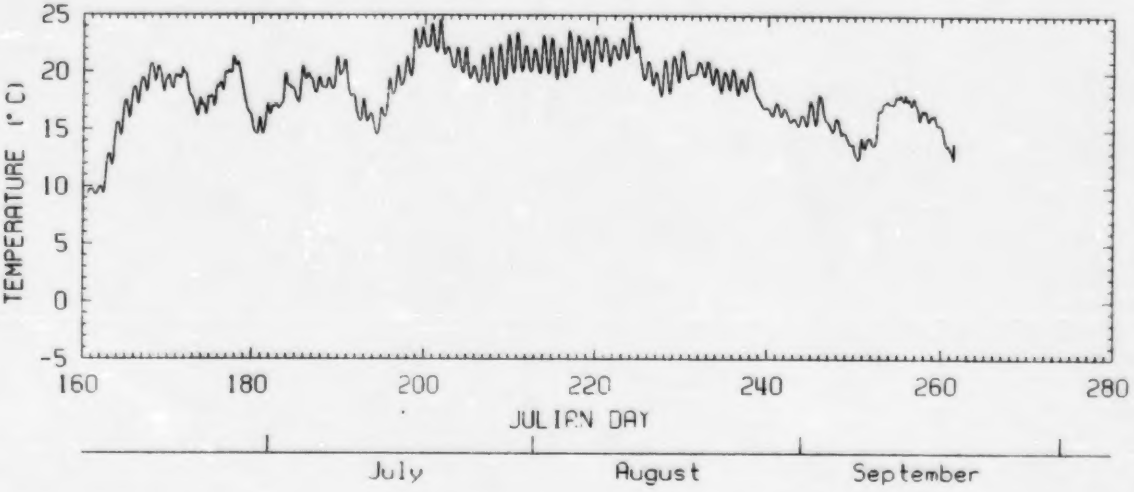


Start: 9-JUN-1998 End: 18-SEP-1998 Inst. S/N:8968

THERMOGRAPH DATA SUMMARY

STATION NAME: LOWER TERRA NOVA RIVER

STATION NUMBER: 115

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 007936

LATITUDE: 48.53° N

LONGITUDE: 54.17° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: 1 m

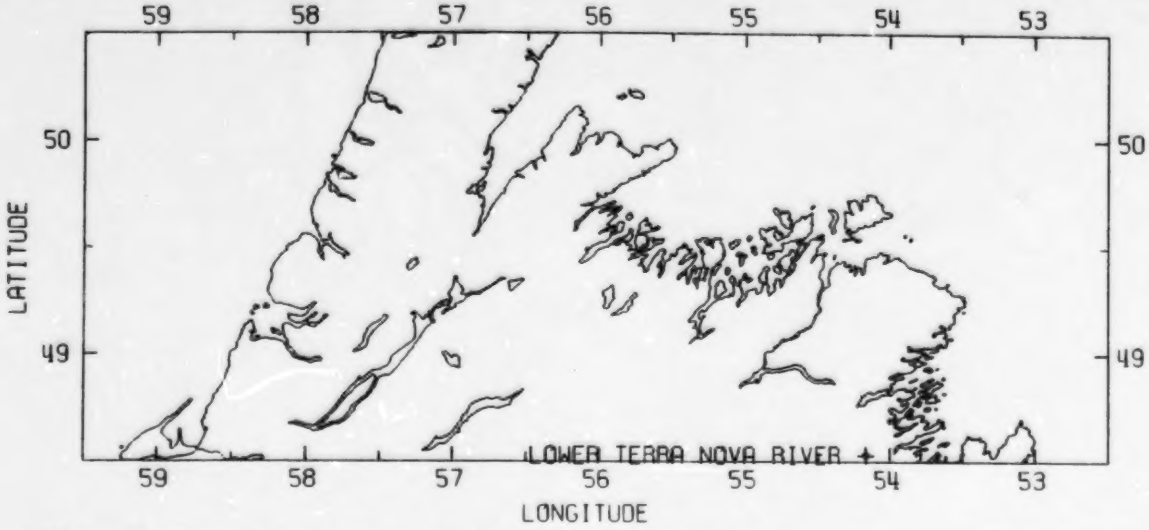
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 1-JUN-1999 13:00 GMT

RECOVERY DATE/TIME: 9-SEP-1999 11:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
JUN-1999	10.95	161	21.75	166	17.10	2.97	512.7	392.7	707
JUL-1999	15.35	189	23.75	199	19.53	1.66	605.3	481.3	744
AUG-1999	15.85	224	24.00	215	19.37	1.70	600.5	476.5	744
SEP-1999	16.15	251	21.05	246	17.91	1.36	160.6	124.6	204
Total Period	10.95	161	24.00	215	18.62	2.38	1879.1	1475.1	2399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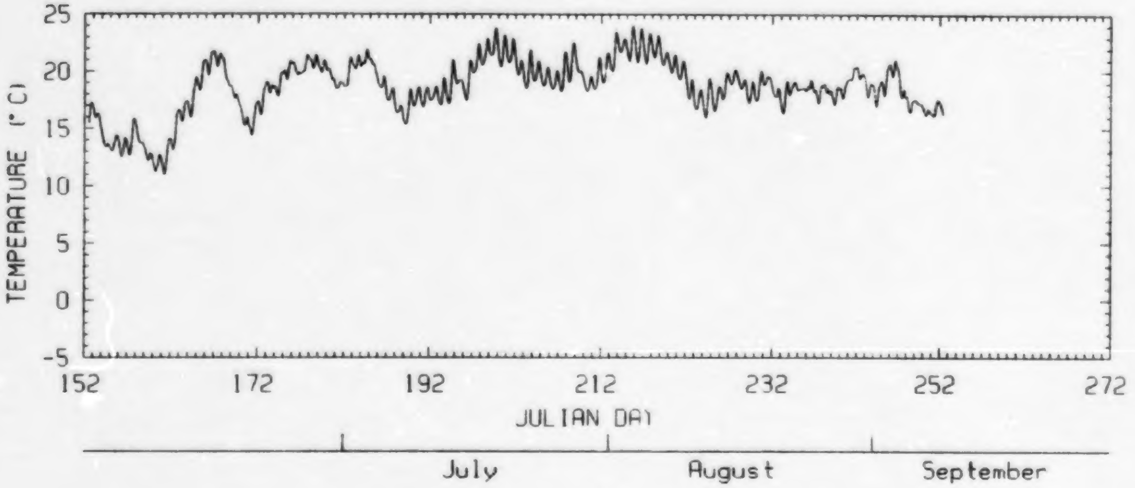


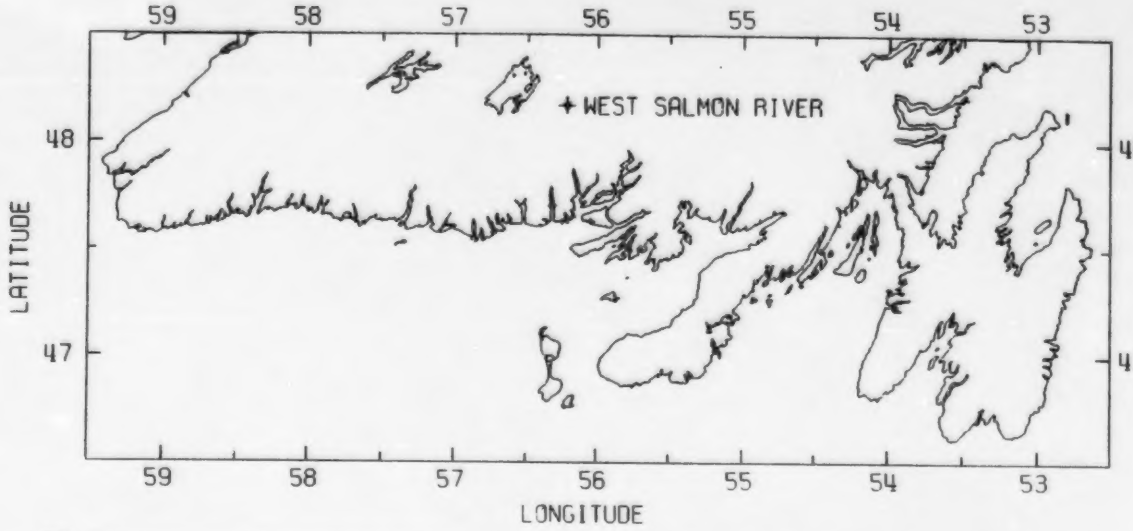
Start: 1-JUN-1999 End: 9-SEP-1999 Inst. S/N: 7936

THERMOGRAPH DATA SUMMARY

STATION NAME: WEST SALMON RIVER
STATION NUMBER: 194
INSTRUMENT TYPE: Seamon UTR-B (Hugrun)
INSTRUMENT S/N: 007942
LATITUDE: 48.17° N
LONGITUDE: 56.22° W
INSTRUMENT DEPTH: 1 m
WATER DEPTH: 1 m
SAMPLING INTERVAL: 60 min.
DEPLOYMENT DATE/TIME: 19-NOV-1997 17:00 GMT
RECOVERY DATE/TIME: 29-JUN-1998 15:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	0.15	332	3.45	324	1.75	0.83	21.5	0.0	271
DEC-1997	-0.05	345	2.05	337	0.39	0.50	12.1	0.0	744
JAN-1998	-0.10	7	0.15	31	0.01	0.03	0.5	0.0	744
FEB-1998	-0.05	35	1.25	59	0.28	0.29	7.8	0.0	672
MAR-1998	-0.10	85	3.40	86	0.74	0.65	23.0	0.0	744
APR-1998	-0.05	94	7.65	120	2.00	1.26	59.9	0.2	720
MAY-1998	3.00	121	12.60	135	7.12	1.91	127.5	55.5	412
Total Period	-0.10	7	12.60	135	1.37	2.18	252.3	55.7	4307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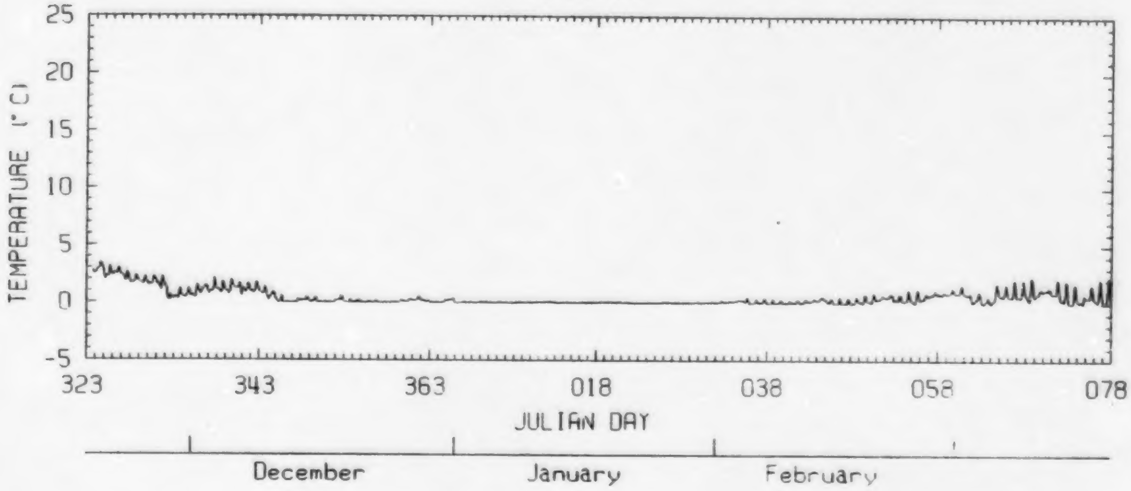
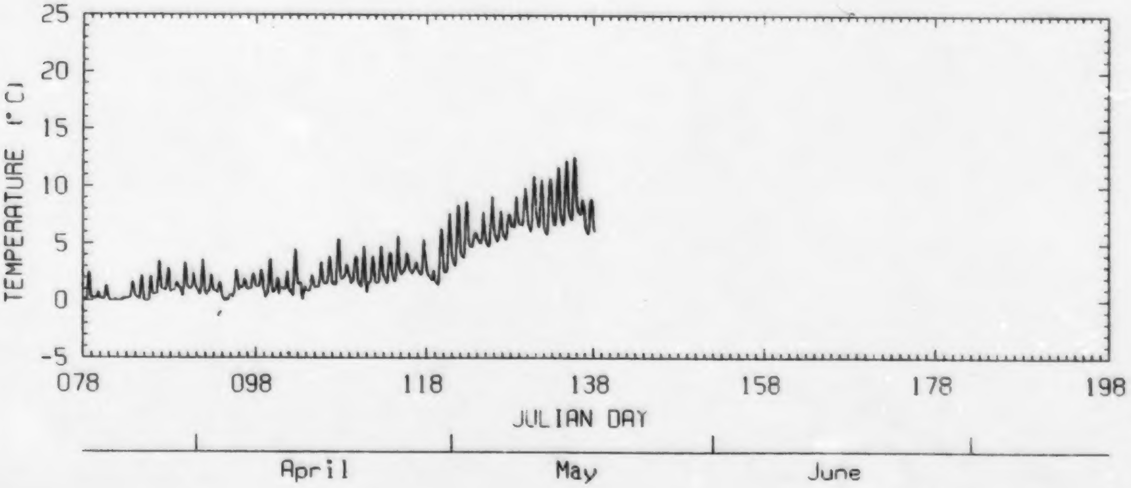




Start: 19-NOV-1997   End: 29-JUN-1998   Inst. S/N: 7942

THERMOGRAPH DATA SUMMARY

STATION NAME: WEST SALMON RIVER

STATION NUMBER: 194

INSTRUMENT TYPE: Seamon UTR-B (Hugrun)

INSTRUMENT S/N: 007935

LATITUDE: 48.18° N

LONGITUDE: 56.28° W

INSTRUMENT DEPTH: 1 m

WATER DEPTH: 1 m

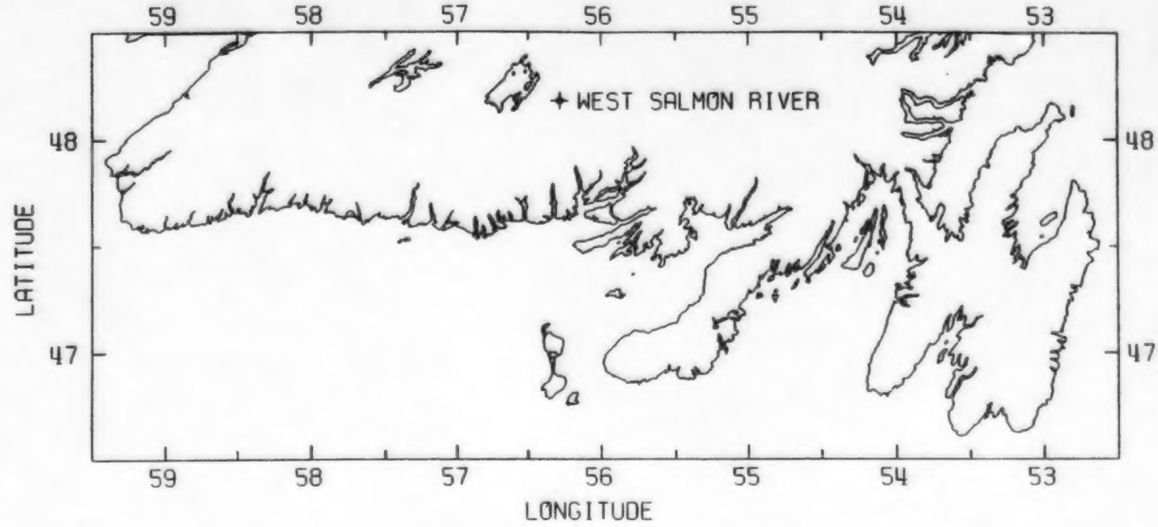
SAMPLING INTERVAL: 60 min.

DEPLOYMENT DATE/TIME: 19-NOV-1997 17:00 GMT

RECOVERY DATE/TIME: 29-JUN-1998 13:00 GMT

MONTHLY TEMPERATURE STATISTICS

DATE	MIN (°C)	DAY	MAX (°C)	DAY	MEAN (°C)	STD. DEV.	DEGREE DAY 0	DEGREE DAY 4	NO. SAMP.
NOV-1997	0.60	334	3.55	324	2.08	0.84	25.5	0.0	271
DEC-1997	-0.05	346	1.60	337	0.53	0.44	16.6	0.0	744
JAN-1998	-0.10	25	0.45	4	0.10	0.12	3.2	0.0	744
FEB-1998	0.00	40	1.20	57	0.48	0.27	13.3	0.0	672
MAR-1998	-0.05	81	1.90	86	0.81	0.37	25.0	0.0	744
APR-1998	0.10	94	4.85	120	1.90	0.79	56.9	0.0	720
MAY-1998	3.50	121	10.70	150	7.48	1.57	231.8	107.8	744
JUN-1998	8.85	152	11.00	153	9.79	0.69	39.2	23.2	93
Total Period	-0.10	25	11.00	153	2.07	2.82	411.4	131.0	4732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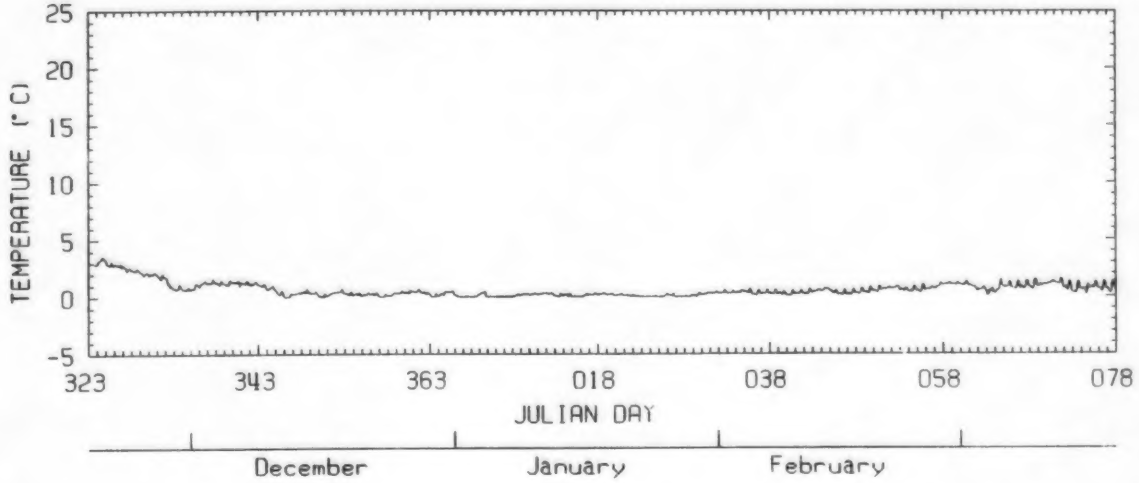

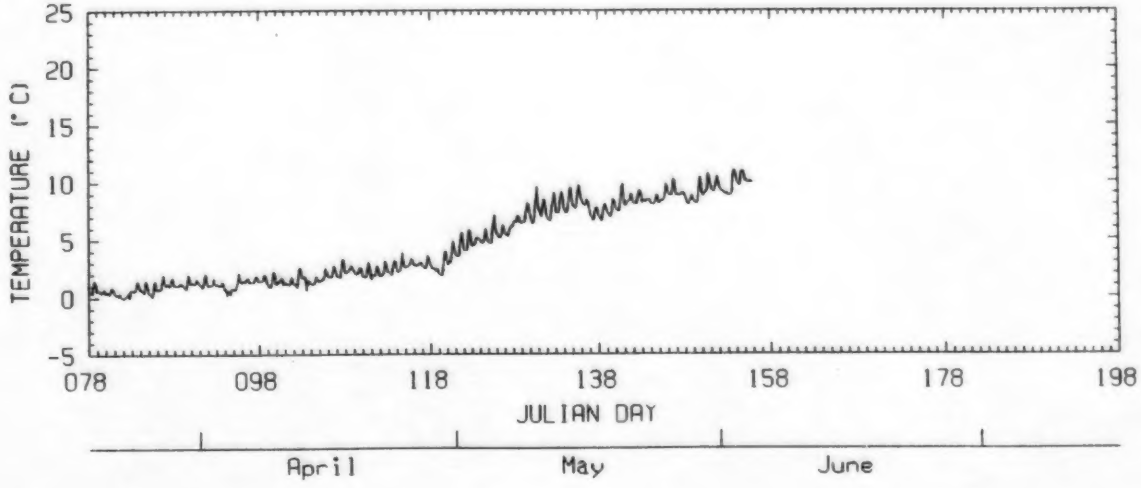

Start:19-NOV-1997 End:29-JUN-1998 Inst. S/N:7935